The Builder.

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PROTESTS on the part of the profession are being made against the proceedings of the Government in the case of Sir Charles Barry and the Houses of Parliament. The Royal Institute of British Architects, after deliberations which have extended over some time, have come to the following resolution :—

"That 5 per cent. upon outlay has been, and is, the only rate of charge recognized by the profession, as fairly remunerative in the average practice of architects.—That it is to be deeply regretted that it should be proposed to depart from the above rate in the instance of the New Palace at Westminster; a building involving in its design and execution the exercise of the highest professional attainments.—That the example which would be set by her Majesty's Government, should the course proposed be carried into execution (a legal appeal against their decision being practically impossible), is to be regarded as disastrous to the future prospects of architecture as a liberal profession in this country,—as calculated to lower the character of public monuments in England, and unworthy the Government of a great nation, whose obvious duty it is adequately to foster and protect the genius of its artists."

Notwithstanding this protest and expression of opinion on the part of the body, we fear we shall soon hear that Sir Charles Barry has been obliged to succumb to the Treasury. "My lords," otherwise Mr. Wilson, will not have an arbitration, knowing that they are inaccessible by law: and to force a decision will pay nothing further. Touching the bargain originally made with Sir Charles, on which the Lords of the Treasury rest, namely, that he would accept 25,000*l.* as payment in full, when the amount to be expended was 707,000*l.* (for the shell) and the works were to be executed in six years, it is not generally known that Sir Charles had received his appointment as architect, with the full belief that the remuneration would be of the customary amount, nineteen months before he had the first official intimation that such was not proposed to be the case. He had then made extensive and costly arrangements to enable him to carry on the works, and had no alternative. When, however, he assented to their decision, he said, —"In so doing, I cannot, in justice to myself and the profession to which I belong, refrain from expressing most decidedly my opinion, that the amount is very inadequate to the great labour and responsibility that will devolve upon me in the superintendence, direction, and completion of the intended edifice; and I trust when this is made manifest, as I feel sure it will upon the completion of any considerable portion of it, that there will not be any indisposition on the part of the Board (especially if the work should prove to be satisfactory to the public at large) to award to me the remainder of the remuneration which has hitherto been customary on similar occasions."

To force his ultimate compliance, for two years the architect has not been able to obtain from the Treasury *one farthing*, though by their own showing, even, 20,000*l.* are due.

The affair affords a fresh instance of might *versus* right, and is a curious illustration of freedom under a constitutional Government. We shall be very glad if the resolution passed by the Institute should aid in obtaining justice for Sir Charles Barry.

We understand that the council of the Institute have recently made another intercession with the Government, in which all are interested. Having been informed that several new consulates were about to be created in the East, under her Majesty's authority, they submitted to the principal Secretary of State for Foreign Affairs the eligibility of duly-qualified members of the profession to fill such appointments in Egypt, Syria, Palestine, Asia Minor, Rhodes, Cyprus, and Candia, in which the most interesting relics of antiquity demand investigation and conservation.

The rule of the French Government to appoint only men of education as consuls in such countries, and the happy results of M. Botta's researches, while French consul at Mossoul, in bringing to light the Ruins of Nineveh, were adduced in favour of the council's representation; and it was urged that architects who had diligently studied their profession would be fitted both to watch over commercial interests, and to secure for our national Museum such remains of antiquity as might, from time to time, be discovered in their respective localities.

The Earl of Clarendon has since informed the council that their request should be duly noted, but he regretted that, with reference to the places named in their letter, other arrangements had been already made.

It is too soon yet, we suppose, to expect our Government to give appointments to the *fittest men*. Let us hope, however, that the time will come.

Lord Harrington has been protesting in the House of Lords, on the part of British sculptors and architects, against the Scutari monument job. Lord Harrington said,—

To execute such a work the first sculptor of the day should have been selected. The gentleman actually chosen was Signor Marochetti, an artist of considerable talent, peculiarly famed for massive equestrian statues; in other branches respectable, but not like Mr. Gibson, and some others, holding a first place in art. As an architect Signor Marochetti was not known to fame; but, indeed, it would be difficult, if not impossible, to find one person equally skilled in architecture and sculpture, as in the days of Michaelangelo. There was nothing very remarkable about the Scutari monument. We had many in this country of the same description. It was very defective in its proportions, inasmuch as the pedestal was as high as the superstructure, whereas the base of Cleopatra's Needle was only one-third the height of the pillar itself. Many obelisks in England were superior to Signor Marochetti's Scutari monument. One point about it was very remarkable; the four unfortunate weeping angels could not possibly stand, for if they did, they must stand either upon their wings, which extend considerably below their feet, or in a flying position. They were in the same position as the statue in the Parthenon, with regard to which the observation had been made, that if it attempted to stand, its head would go through the roof. The sculptors of this country did not wish to disparage the talent and genius of Signor Marochetti, whom they all highly respected, but they complained that a system of favouritism had been adopted, and that equal justice had not been done to the sculptors and architects of this and other countries. Entertaining the same opinion, in justice to those sculptors and architects he would put the following questions to the Government: — 1. By whose authority the Scutari Monument had been undertaken? 2. Who had selected Signor Marochetti to undertake the work? 3. From what fund the payment was to be made? And 4. Why the work had not been subjected to public competition, so that the sculptors of England, France, Italy, and Germany might have sent in models, and an obelisk have been produced that would have immortalized our warriors and the sculptor for ages to come?

Lord Panmure in reply, said, the responsibility of the selection of the artist rested with the Government alone. As to public competition, the noble earl must be aware that the sculptors and artists of this country declined to furnish plans to compete for the erection of public monuments. (?) Signor Marochetti had been selected because he was famous on account of some colossal works that he had executed, and the design for the Scutari monument had commanded public favour, at least so far that he had heard very little complaint made about it, and he thought it had never been condemned in the manner in which the noble earl now condemned it. Baron Marochetti had gained so much reputation in this country, that he was now to be regarded rather as an English than as a foreign artist; but, even if he were a foreign artist, the noble earl, who wished to throw the work open to the competition of the artists of Italy, France, and Germany, could not make any complaint on that account.

A very lame reply, and one with which those who are interested in the advancement of the art of sculpture and architecture in this country ought not to be satisfied.

Westminster-bridge is exciting alarm, and has been taken in hand by Sir Benjamin Hall. The reports in circulation, we do not know on what grounds, speak of insufficient foundations. Be this as it may, on the 3rd, Sir B. Hall, in the House of Commons, obtained the appointment of a select committee on this bridge, to consist of Sir Benjamin Hall, Mr. Henley, Mr. Bramston, Colonel Boldero, Mr. Jackson, Mr. Ker Seymer, and Mr. Tite.—Mr. Locke contended that the House ought to initiate inquiry before the Board of Works undertook the subject.

Sir B. Hall said that due notice had been given that he would move for this committee, and the reference to the committee was made as wide as possible. He justified his own administration of this bridge, and challenged inquiry into his conduct.

The Chief Commissioner's letter to the Metropolitan Board of Works, returning the plans determined on by the Board for the drainage of London, has been severely commented on. Surely, however, the Board could not have expected any other result. Sir Benjamin Hall says, through the secretary, Mr. Austin,—

"By the Metropolitan Act, 1855, it is provided that 'the Metropolitan Board of Works shall make sewers and works for preventing all or any part of the sewage within the metropolis from flowing or passing into the Thames *in or near to* the metropolis.'

But the scheme submitted for the approval of the first commissioner actually provides that the sewage shall flow into the Thames at a point within the metropolis. It consequently follows, that before any such scheme can be carried out, it will be necessary to call upon Parliament to repeal so much of the Act of last session as provides for the purification of the River Thames within the metropolis."

And so, not being willing to do this, and considering that the scheme is entirely at variance with the intentions of the Legislature, he returned the plans which were submitted for his approval.

It is a triumph for Mr. Leslie, and not very creditable to the advising officers of the Board. The unfortunate result, of course, is the postponement of this vital question, at all events for a session.

At a meeting of the Board last week, a report was presented by the superintending architect, on the application of Mr. Munday, asking for the approval of the Board to the raising of an engine-chimney in Cox-square, Spitalfields. The report recommended that the chimney be not raised on the plan proposed, and the superintending architect suggested that the work should be done on a plan that he proposed.

This report led to a long and animated dis-

cussion as to the principle that was involved in it. On one side it was contended that the superintending architect, as the officer of that Board, was not called upon to suggest plans to be substituted for those submitted to him, as by so doing the Board would take upon themselves a great amount of responsibility, and especially so, if the work which was done under the recommendation of their architect should fall down. In that case there would be abundant evidence brought forward to show that those who performed the work did it under the express sanction of this Board, in opposition to the plan originally proposed, and it would then be said that if they had been allowed to do their work in their own way it would have stood, and there would have been no accident whatever. On the other side it was argued that if their superintending architect were to wrap himself up in official reserve, and refuse to explain his objections to a particular plan submitted to him, a hundred plans might be brought forward and not meet the particular point of his objection.

Ultimately the report of the architect was adopted by 13 to 11, establishing, it may be supposed, the principle that the superintending architect may suggest plans in lieu of those submitted to him to which he may object. Without reference to this incident, but as applying to their proceedings generally, which we have watched most carefully with kindly eyes, we must be permitted to say that the Board have yet to establish their reputation with the public as a practically working body. The power they have chiefly exhibited up to this time is that of negation.

WORTH CHURCH, SUSSEX.

THIS very interesting structure is about three miles from the Three Bridges Station, on the London and Brighton Railway, it has long been noted as one of the curiosities of the country, but has not been described at any length until recently. The eighth volume of the "Sussex Archæological Collections," relating to the history and antiquities of the county, recently published by the Sussex Archæological Society,* contains an account of the church, by Mr. W. S. Walford, with several engraved illustrations, which, by the kindness of the committee, we are enabled to reproduce. The general view from the south-east (fig. 1), shows the stone ribs or pilasters on the face of the exterior which distinguish it, and the massive buttresses at the east end added by later hands, that give a peculiar effect to that part of the church. It has a string course and curious base in two stages, bearing a rude resemblance to the graduated plinths of classical architecture. It will be seen by the plan (fig. 2), that it is a cross church without aisles, and that the chancel has a semicircular east end. There is no indication of any tower. A bell-chamber has been erected over the north transept. The walls would seem to consist of rubble, and are mostly plastered externally, with the exception of the stone ribs or pilasters, already referred to. The walls of the chancel are lower than those of the nave, but the roof is higher, being of sharper pitch, and serves to give it a continental aspect.

Within the walls, the nave is 59½ feet by 26½, and the chancel, including the archway connecting it with the nave, is 34 feet 9 inches by 21 feet. The chancel-arch is very effective, both from its size and its proportions. It is 14 feet 1 inch in span, semicircular, and of a single order, measuring at its highest point from the floor 22 feet 5¾ inches. "It springs, at the height of about 15½ feet, from massive semicircular jambs or piers, with remarkable imposts or capitals, each consisting of a flat cushion and a square abacus, with an intervening quarter-round moulding. (See fig. 3.) On the western face of it was a double square hood-moulding, the under member being in lower relief than the upper: of this member (the upper) only a small portion next the north capital remains. The eastern face has a single square hood-moulding, equal in width to the double one on the other. On the same face (*i. e.* the eastern) is a bold half-round moulding, descending from each capital to the floor. The piers and arch are about 3 feet thick, exclusive of mouldings, and the stones of which they are constructed extend through the whole thickness. The work is deficient in the neatness and regularity which are characteristic of Norman masonry. There is a want of parallelism and similarity in parts which should have been respectively parallel and alike. The two capitals, though at first sight alike, will be found dissimilar in their proportions and sectional lines, as if worked by different hands, without the ordinary care to secure likeness where the design did not contemplate diversity. The intended horizontal lines of the north abacus slightly converge, and the half-round descending from the capital deviates considerably from the perpendicular."

The windows and doors are of various dates, and are all insertions, with, perhaps, one exception. The font is described as consisting of two fonts, one upon the other, although this could scarcely be asserted from its appearance alone. They may both be ascribed to the beginning of the thirteenth century. It will scarcely be necessary to say that Worth Church is included in the list of churches, now much larger than it was formerly, ascribed to the Anglo-Saxon period. In most of the churches in this list, we find the walls of rubble, covered with plaster, having long and short blocks of hewn stone at the angles, and in many the narrow ribs, or square edged strips of stone, bearing resemblance to pilasters, and similar to those at Worth. The tower of Barnack Church, Northamptonshire; the church at Barton-upon-Humber, in Lincolnshire; Sompting Church, Sussex; and many others may be pointed to.

Anglo-Saxon MSS. confirm the views of those who ascribe the class of buildings here mentioned to the Anglo-Saxon period. In the illustrated paraphrase of Cædmon, executed about the year 1000, we find amongst the architectural details which appear, these stone ribs or pilasters, the long and short work, triangular-headed openings, and plain graduated footings as at Worth.

The fact that this church is not mentioned in Domesday is simply one evidence that that important record does not comprise all the churches in the county.

Worth Church is probably the most perfect in plan of all the Anglo-Saxon churches, as the original foundation does not seem to have been disturbed, although insertions in the walls, as we have already said, have been made. In Brixworth Church, a building ascribed to the seventh century, the chancel terminates as at Worth, with a semi-circular apsis.

Mr. Walford, although he concurs in the opinion that Worth Church is substantially Anglo-Saxon, sees no reason for believing it to be of earlier date than the first half of the eleventh century. "I incline," he writes, "to think the nave and chancel were not built at once; for the difference in the height of the string-courses upon them, not to mention the variation in form, suggests that the chancel was first erected. Being a forest country, there may have been a temporary wooden nave, which was shortly afterwards replaced by the present, for the interval cannot have been long. The string-courses on the transepts resemble that on the chancel; but then they were never free and independent strings, but were, I conceive, originally introduced merely to carry the roofs, or at least to mark to the eye the roof-bearing lines. Etheldred II. married, in 1002, a Norman princess, who afterwards became the queen of his successor, Canute. She was the mother of Edward the Confessor, by Etheldred. A Norman influence in architecture began to be experienced, it is believed, in this island several years before the Conquest, and it is said to have been encouraged by the Confessor, who had spent some years in Normandy."

His belief as to the date may be correct, but so far as we can learn, there is no sufficient reason why Worth Church may not be a building of the eighth or ninth century, at which time, as we know, stone churches of importance were erected in this country.

The grounds of the rectory-house adjoining form a charming adjunct to the church; and if the visitor would seek other objects of interest,—Wakehurst-place, an Elizabethan residence, the picturesque rocks at West Hoathly, the most beautiful place of its kind in the county, the church of West Hoathly, and the house of Anne of Cleves, will fill up his day pleasantly.

* London: John Russell Smith, Soho-square. The volume includes other matter of much interest, a full and valuable account of Dureford Abbey, by Mr. W. H. Blaauw; "The Families of Braose of Chesworth, and Hoo," by Mr. W. Durrant Cooper; "Notice of the Abbey of Robertsbridge," by the Rev. George Miles Cooper; "On the Saxon College of Bosham," by the Rev Edward Turner, &c. It is a very good specimen of what the transactions of such societies as this should be.

ON THE APPLICATION OF NATURAL FOLIAGE TO ARCHITECTURE.

IN a popular French work on Mediæval Architecture, the author says, rather quaintly, in his introduction, that "There are people who have good eyes, but who, however, are not able to see that which exists immediately around them,—because they have not thought of or regarded attentively that which is before their eyes. We find men to whom all forms are alike, and who are not able to distinguish that which is beautiful from that which is ugly." He further goes on to say that such persons are imperfect,—they have not developed the faculties which have been given them by nature; and, further, he compares them to musical instruments which are deficient of some of their strings.

In my last I endeavoured to point out the same thing, although in other words,—this mental blindness and disregard of that which is lovely and beautiful, although it may be lying at our very feet. It is necessary to educate ourselves to learn to appreciate the beauty of form and the harmony of colour,—to learn to separate the beautiful from the ugly.

That we are not yet so educated and enlightened is plain from the very many questionable forms of design which surround us. Things which in the streets of this great metropolis meet us at every turn,—in our houses, our furniture, and our various manufactures; yet many of these we are satisfied with, and no one appears to attempt any improvement. Look at our stoves, for instance, and most of the ordinary things formed in cast-iron and intended to be "highly ornamental;" often described to be of "elegant and chaste design," of "superior character." Perhaps it is a cast-iron hunting-whip, with an accompaniment of foxes' heads, with the lash stiffened into loops to hold umbrellas, for this is an example of the wretchedly tame and worthless things we see turned out of the manufacturers' hands every day, under the name of new designs, and it would be a very simple and easy task to point out hundreds of others of a similar description. But such is not my purpose. I would turn to a far more instructive task: I would ask you to accompany me, and let us together endeavour to supply in ourselves some of those things of which the French author spoke that are deficient in us. Let us go heartily to work to cultivate that love and appreciation of the beautiful—the true—and the good which God has implanted in our bosoms,—so that we become better and wiser, and that our eyes may be opened, that we may shun that which is bad and false.

In my former lecture I pointed out the necessity of closely studying natural foliage, if you are at all desirous to put that life and beauty into your work, that freshness and vigour, which is the main cause why we see so much to admire in the sculpture and architectural decoration of every age: whether it be Egyptian, Assyrian, Greek, Moorish, or Gothic, no matter how rudely sculptured it may be, there is an indescribable something that stamps it as a successful application from nature,—no literal and minutely servile copy of mere natural forms, but a judicious adaptation to the purposes required.

On the present occasion I propose to treat more distinctly upon the application of natural foliage for decorative purposes, and I would here premise that it is a difficult matter to lay down rules to say how far nature shall be

WORTH CHURCH, SUSSEX.

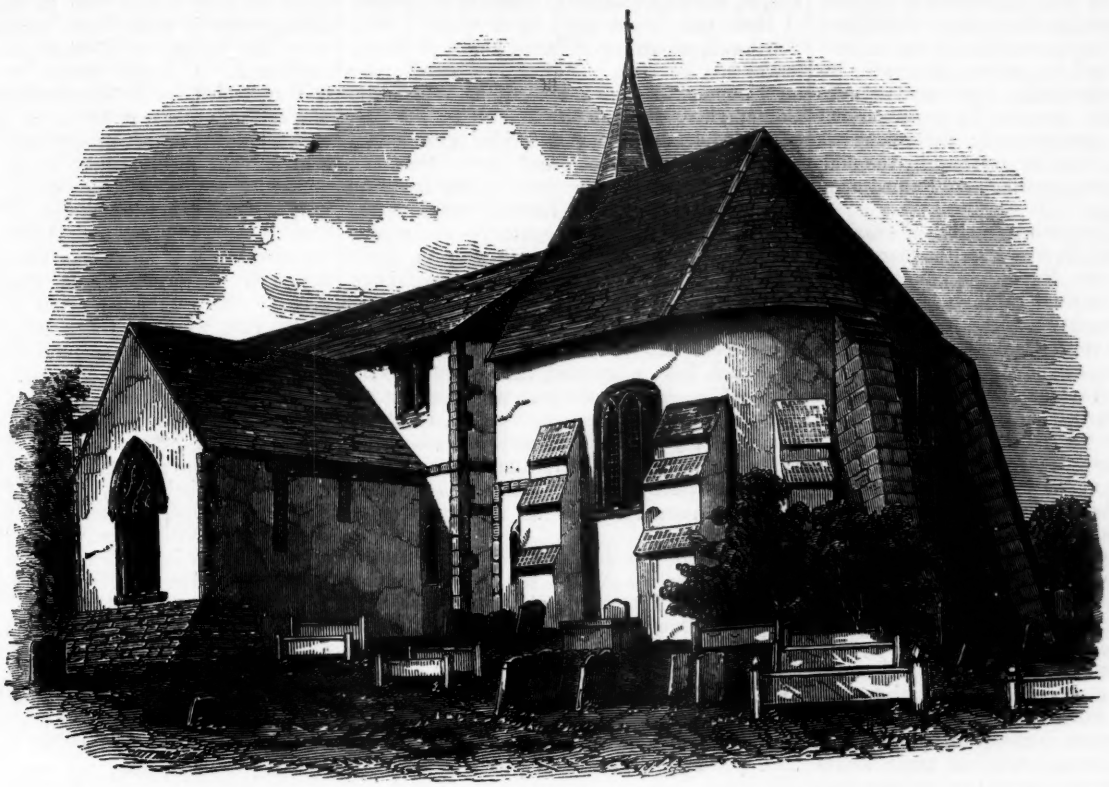


FIG. 1.—*General View from the South-east.*

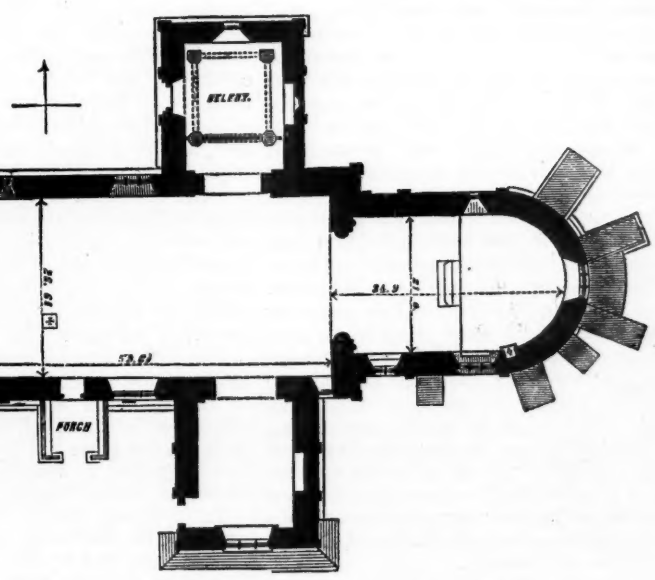


FIG. 2.—*Ground Plan.*

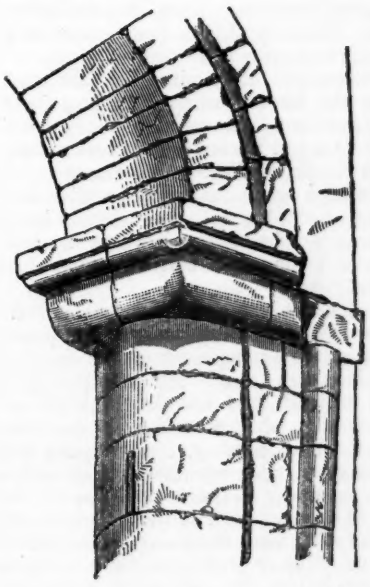


FIG. 3.—*Chancel Arch.*

adhered to, or how far it shall be departed from. This must after all, in a great measure, be left to the skill and fancy of the designer. Literal imitations of nature, although ever so beautiful in themselves, will never constitute architectural ornament. Nature must be followed as a guide, a principle, and wherever her laws are infringed, the work will become unnatural, and what is unnatural must be more or less ugliness.

In modern ornamentation the main idea appears to be, to give as much as possible for the money, no matter how bad it is, if but the quantity make up for the quality. Our chairs, sofas, sideboards, and looking-glasses are covered up with coarse-looking, badly-carved Louis Quatorze scrolls, all bolstering up one against another, as if for mutual support. In this style, too, there is a simple law of nature, which is constantly violated, that is, nearly every scroll is growing two ways—it is growing out at both ends at the same time. This is a fault which is carried to an excess in this style, and in the carvings upon our modern furniture, but it is also more or less common to all the classical styles: it exists in the Athennion ornament, and I am of opinion that it is the great fault in the Ionic volute. Mr. Ruskin has been most severe in the condemnation of this order, but with what justice I am unable to say: there is, however, something about the capital which always struck me as being stiff and unnatural. The two spirals of the volute both grow from the centre: one, as it were, grows out of the other, and gives the capital a remarkably stiff and unnatural appearace. Now, the Roman architects appear to have seen this defect, and often obviated it by discontinuing the volute across the front of the capital, but made them spring from behind the enriched moulding which comes immediately below the volutes, and placed a flower in the centre. This arrangement is also seen in the composite, which is taken from the Ionic.

There may be cases where it would be judicious, to some small extent, to break this rule, and make the foliage grow two ways; but there cannot be a doubt that where it is carried to excess, it leads to nothing but a style which is full of fantastic whims, but soon sinks into unmeaning tameness and insipidity, while those styles which adhere to nature's laws are ever fresh and beautiful. The Gothic styles are entirely free from this fault: I do not remember myself a single example but where the natural law is followed. But you may say, "How is it that the architects from whom we got the Louis XIV. or our picture-frame style, how is it they did not see that what they were designing was not natural?" Because their ideas were based entirely upon former styles, and they lost sight of the necessity of adhering to nature. They thought their conceits were far before nature, and they worked entirely according to whim and fashion. Hence the necessity for constantly studying and referring to nature, that we may at least be *aware* when we are infringing her rules. It is, therefore, highly necessary that we should all understand the simple rudiments of botany. For a book of reference upon this subject, I cannot do better than recommend to you, as I did in my last

lecture, Lindley's "School Botany," as it is a most excellent work, and extremely moderate in price. Botany as a science is rather an abstruse one, but a sufficient knowledge may be obtained by the carver or decorator without a vast amount of study, and it will be quite sufficient for his purpose if he merely studies the various classes from their English names. To a person not versed in Latin, unfortunately, the science is involved in a great deal of mystery by the difficulty of retaining names which are formed upon the Latin language.

It is extremely necessary to study the various kinds of leaves and flowers with the manner in which branches and leaves grow in different species. I will here go through some of the most prominent varieties, with their manner of growing, trusting you will take it up, and pursue the matter further, at your leisure.

Most plants and trees grow either with leaves and branches alternate, or opposite; that is, they are alternate when they spring out alternately at different places upon the stem, not opposite each other, as the ivy, oak, thorn, and the greatest number of plants and trees. They are said to be opposite when they spring off from the same point upon the stem in pairs, each leaf being opposite the other; and when seen upon the top, the branch presents a cruciform arrangement, as in the lilac, maple, nettles, and many other plants. Another mode is, that of growing in a whorl, that is, more than two leaves growing out from the same point upon the stem. The wood anemone, for instance, grows with the leaves issuing triangularly, and when seen from the top, with its triple leaves and six-petalled flower, presents a most interesting example, and a very elegant suggestion for coloured decoration. In Gothic architecture this arrangement was common, and was a favourite, and very natural one, for the foliage in trefoils. Cross wort has four leaves in a whorl, and goose-grass and wood-ruff eight.

The grasses and other plants of that class grow with the leaves issuing from knots, and sheathing the stem. The scrolls of the enriched friezes in Greek and Roman architecture usually issue from sheathed foliage in this manner.

The mistletoe grows in a very peculiar way, by forking or dividing into two at every knot, and the branch ending in two leaves, which fork in the same manner, the berries issuing from the intersections.

Here, then, we can soon see that a little simple knowledge of botany *may* give us a power of variety in the arrangement of the leaves of foliage which we could not possibly have possessed without this knowledge, when we were proceeding only according to our own fancy or at random, although it may happen that we cannot often take advantage of it, either from the smallness of the composition or the difficulty of circumstances in the arrangement; but, on the other hand, there may be cases where it would be of the greatest importance, and give to our compositions life and variety they could not otherwise possess. But perhaps, of all studies, that of the various leaves, of which there is an enormous and endless variety, embracing some of the most lovely forms in nature, presents the most important and the most interesting one.

There is nothing too minute that is not worth noticing, in the veins, ramification of net-work, crumpling of the surface, and many other matters; for although you are not going to imitate the minutiæ, nature in this respect is always immeasurably superior to every art of man. No matter how powerful the microscope, the more we look into her minute and secret ways, the more perfect only does she become; and it is possible that beauties may be seen under the microscope which would be well worthy of being transferred to our art at a much larger scale. Not that I mean to say you must study with a microscope, but only that I wish to point out, by means of this illustration, that there is nothing in nature which is too insignificant for study, and however small and unimportant to the eye, it may still conceal a beauty which would be immeasurably valuable to you in your art. Leaves are of course divided into different classes or kinds. First, there is the simple, undivided leaf, without distinct lobes, which, although so simple, still contains a great variety of forms. They are often used with good effect in carving, and some of them, although perfectly simple, are very beautiful. There is an example of their use in old work in a spandril from Southwell, where two different kinds of simple leaves may be seen in the same spandril; also an example of the hazel, from Winchester Cathedral.

Simple leaves are again divided into distinct lobes, as the *hepatica* and *herba benedicta*, which are divided into three. The beautiful foliage of the Early English period—the period of the thirteenth century—was mostly taken from triple leaves, which were no doubt adopted as being emblematical of the Trinity. The ivy, vine, maple, and many others are divided into five lobes: in the maple each lobe is again cut into three or more parts, and in the vine each lobe is serrated, that is, cut like the teeth of a saw, as is the case with many of the more simple leaves, as the Spanish chestnut, elm, and many others. The thorn, which is a valuable leaf to the carver, is sometimes divided only into three lobes, but more often into five, but sometimes as many as seven, and even nine.

The thorn was deservedly a great favourite among the artists of the fourteenth century, and they have left us many beautiful specimens of their manner of treating it, both in flower and in berry. There are several excellent examples of this in the Museum from the charming little Chapter-house at Southwell Minster, also some from the Continent. It was also the type of much of the foliage which was used at a later period, as at the Chapter-house at Ely, but which became far more conventional, and less like the natural type.

There are also beautiful examples of the use of the ivy, maple, vine, and other five-lobed leaves from Southwell and other places. But to return to the different kinds of natural leaves. The oak-leaf is irregular in the number of its lobes, sometimes having more on one side than the other. This is a leaf which has so much distinctive character of its own, and its being usually accompanied by its well-known fruit, the acorn, that it is usually recognized quicker than almost any other kind of foliage.

There is another kind of oak that has a very elegant leaf, which has been introduced into this country of late years, called the Turkey oak. There are several trees of this kind to be found in the Regent's-park. There are other kinds of leaves which have many lobes, as in the thistle and dandelion. I do not remember to have ever found the leaf of the dandelion in old carvings, but it is a very beautiful leaf, and one that I think might be used to great advantage. The thistle, from its sharp bristling crispness, was another of the old favourites, and was used even more on the Continent than it was in this country. There is a very fine example of a thistle crocket from Bourges Cathedral,—a cast of which is in the Museum.

These are still called simple leaves. A compound leaf consists of several leaves or leaflets, as they are then called, on the same stalk, as in the clover, laburnum, and strawberry, each of which consists of three distinct leaflets; also the rose, which has five leaflets, and sometimes seven. The horse chestnut, and many others, have five or seven leaflets, all issuing from one point on the stem, and are termed palmate, or like a hand.

The ash, acacia, and others have the leaflets in pairs on each side of the centre stalk, with a single one at the termination. Other leaves are doubly compound, as the parsley, which consists, first, of a centre stalk, from which issue other stalks, and from these again issue leaflets. Many of the fern-leaves, most of which are very elegant, are of this kind—that is, doubly compound.

Other leaves are trebly compound, as in double parsley, carrot, and others; but as these are mostly of too complicated a nature for the use of the carver, we need not pursue the subject farther. There are many varieties of the different kinds which I have mentioned, all of which you will find most interesting for the purposes of study. The same plants also will sometimes bear both simple and compound leaves, as in the *herba benedicta*, &c.

Another most interesting branch of study is that of flowers, both as regards arrangement and also general form: as a general rule, the forms are more simple than in leaves, but the arrangement is much more various. Flowers may, like leaves, be divided into simple and compound. A simple flower is either entire and undivided, as in bell flowers, or it consists of a certain number of leaves, or petals, as they are technically called, usually radiating from a centre. The most simple, except those which are entire, consists of three petals, as the snowdrop. Others are cruciform, of four petals, such as the wallflower and stock. But by far the most common number is that of five, as in the common primrose, dog-rose, and many others. We see the five petals in the ordinary Tudor rose, which is taken from the common dog-rose. The wood anemone and jonquil have six petals; pilewort crowfoot eight. The stichwort, or stellaria, has five petals, each petal being again almost divided into two, giving a star of ten points. The iris, from which the conventional fleur-de-lis is taken, consists of six petals, three of which turn upwards, forming a kind of crown, and three turn very gracefully downwards. The similarity to the conventional form of the fleur-de-lis is plainly seen, when one of the petals which turn upwards is brought in the centre. It is a beautifully symmetrical flower, and offers, I think, a fine suggestion, as no doubt it has often hitherto done, for a very elegant metal finial. It is a very common thing to make metal fleurs-de-lis consist only of three parts, two lower leaves and one in the centre, as they are represented in painting or sculpture; but what an improvement it would be if they were made triangular, with all six petals, as in the natural type.

The lilies also are of six petals, and are arranged much in the same manner as the wood anemone and jonquil. The lily has been from time immemorial the emblem of purity, and from its triple combination it is also a beautiful emblem of the Trinity: it is not surprising, therefore, to find that it was the type of many of the most beautiful forms in Gothic architecture, as the different varieties of the hexafoil triple bosses, spandrils, &c.

There are also a vast variety of flowers which do not radiate from the centre, as the heartsease pea, orchids, and a variety of others,—many of them offering beautiful suggestions in form and colour, and opening altogether a field for study, which, for decorative purposes, has been comparatively yet untrodden.

Compound flowers consist of a number of small flowers, or florets united upon a disk, as in the sunflower and daisy, or they form a cluster, called an umbel, as in parsley, a spike as in the fox-glove and lupin; or they are clustered together in various ways or forms, too numerous for me to mention.

In applying natural foliage to decorative purposes, the first thing to be laid down is the general lines, that is, the direction and disposition of the stems which are to be afterwards clothed with foliage. Great care should be taken that these are judiciously chosen: they must not too closely follow nature: there must be no broken or rustic foliage, such as we so often see in silversmiths' work: there must be a harmony, and an agreeable contrast with the boundary or surrounding lines. In architecture nearly all ornament is obliged to be arranged geometrically, for without it is so to some degree it will seldom harmonize happily with the architecture which it is intended to enrich. It may sometimes be departed from to a small extent to give variety, and to gain picturesque effect; but there must be a certain harmony kept up, and the lines of the foliage must not jar or clash with the mouldings, or other architectural lines which surround it. For instance, if we take a spandril, which is merely a triangular space left by the architectural lines in canopies and other places,—the most simple of all lines, to arrange the foliage upon, will be three lines issuing from the centre, and running to the points of the triangle. These lines are in harmony, because they do not approach too near, or in any way jar or interfere with the bounding lines, and they are simply a geometrical division of the triangle into three other triangles. In the same manner if we require the most simple lines for foliage in a

square, we have them immediately in lines proceeding from the centre to each of the angles, which give the ordinary diagonal lines. Next in the triangle we have a triangle introduced in the centre. In the square we may introduce the diagonal square, touching the centres of the sides of the larger square. This may be varied by introducing circles in place of the triangle or square: from this we arrive at the scroll in place of the comp'ete circle. Commencing again with our first three lines, we can produce variety by uniting them by curves;—further, by branching as in parsley; by leaflets in pairs, as in ash and fern; branching alternately as in oak; and farther, if required, can be carried to any extent of elaboration and richness, by following the manner of subdividing of any of the more compound leaves, as in some of the most beautiful and delicately divided ferns. Although this subdivision may probably be too elaborate to carry out in stone or wood; yet I can conceive of its opening a beautiful field for decoration in other materials, such, for instance, as diaper for linen fabrics, carpets, gold and silversmiths' work, painted decoration, papers for walls, and many other works.

To return to our general lines, it is evident that variety can be gained by introducing scrolls, yet still keeping up all the original arrangement, until at last we arrive at a combination perhaps equal to the beautiful scroll spandril from Stone Church, Kent, which, perhaps, for the very charming manner in which it is arranged, is as successful as anything which can be met with.

Another simple mode of arranging the lines is that of simply radiating from the centre, as in flowers; the most simple being three radiations, or two threes, as in the lily, as I have already mentioned; four, two fours, and so on, as in flowers. Another mode is that of fan radiation, as in the lupin and horse-chestnut. Of this character are many of the Greek honeysuckle ornaments. If the surface is large, which is to be covered with foliage, it will be found highly advantageous to divide the surface into some pleasing combination of geometrical forms, afterwards filling in the spaces left with foliage. In this manner are some of the most exquisite wall diapers of the Alhambra. Geometrical combinations have this great advantage, they are all founded on forms in nature—there is no limit to the variety which can be produced, and they do not tire the eye like any confused or irregular arrangement. There is always a certain order and symmetry which are pleasing to the eye.

No better practice can be conceived in the study of decoration, than that of making skeleton diagrams of the general lines, or stems, merely, in the various compositions, both classic and Gothic, which are collected together in this museum: you will perceive what variety there is, and upon what principles they are laid out, and you will farther put yourself in a position to strike out other combinations which have not yet been developed.

In this study you should treat everything in the flat. If it be a capital, or a crocket, or a boss, unwrap it and lay it out in the flat, so as to study the first principles independent of the curved surface to which it is afterwards applied. Having well studied the stems or general lines, you will find the next step comparatively easy—that of clothing with leaves and flowers the general lines which you have laid down.

Here again you will find that the forms of leaves are intimately connected with geometry.—that they are based either upon the triangle, the square, the pentagon, or the circle; and that often the space to be filled in will suggest the kind of leaf to be used. You have then to study the light and shade, as I more particularly explained in my last lecture; and by following the matter up with a constant reference to nature, and without tying yourself down to copying old examples, looking at them more for the ideas they contain, and for the purpose of comparing them with nature, seeing what their designers took from the great book, and what they left, you will soon find that you are enabled to take a more comprehensive view of foliated design than you had ever before imagined, and you will begin to strike out new and independent beauties, which in time cannot fail of producing the happiest results. I feel certain myself that there is a field open to us in ornamental and foliated design of which we have yet no conception, going far beyond anything which has been already done. *I* cannot develope it, and *you* cannot develope it, individually—but it must be the work of an age, the work of all—all working in the right direction. We should thus produce something in art which would yet be a glory and a halo around the setting sun of the nineteenth century.* JAMES K. COLLING.

THE INSTITUTE AND THE ARCHITECTURAL ASSOCIATION.

THE letter recently addressed by the Council of the Royal Institute of British Architects to the Architectural Association, and printed in your paper last week, will, I trust, ultimately be the means of bringing about the fusion into one general institution of all the societies at present representing the architectural profession,—an institution which shall embrace within it all classes of the profession, and carry out under one general direction the various objects which existing societies, owing to limited resources and other causes at the present time, but imperfectly represent.

If, sir, we are to accept as genuine the expressions of sympathy which the Council of the Institute, in the letter referred to, evince towards the Architectural Association, we may reasonably infer the Institute desires the fusion of the members of the Architectural Association into their Society; and by the concluding paragraph in the letter, in which the Council expresses itself as follows,—"In conclusion, the Council desire to record their opinion, that every alienation among its members tends to a lowering of the social weight and position of the profession as a body, and that a policy of affiliation is infinitely to be preferred to one involving repulsion or isolation," we may reasonably infer that the Institute desires to make its own body the one into which all other existing societies belonging to the profession should be merged. But to effect so desirable an object, the Institute must take the initiative, and materially liberalize its constitution, or it will be useless for the Institute to attempt to incorporate within its own body those societies which at present exist external to and independent of it. But what says the letter to the Architectural Association upon this important point: "Slight modifications can be made in the bye-laws of the Institute, but no alteration can be introduced into the charter." Of what use, then, is it suggesting a fusion with the Architectural Association, or any other body, if the same exclusive management of its affairs is still to be maintained? Surely the laws of the Institute are not like the laws of the Medes and Persians, that they *cannot* be altered. Is it not rather the *will* than the power that is wanting?

If the Institute were a private society, it might be considered impertinent in me, or anybody else not belonging to it, to criticize its constitution or management; but now (whatever might have been its former status) it has obtained the recognition of the Legislature, and has been invested with powers of a character which places its proceedings out of the pale of a mere private society, I consider I have a perfect right, as one of a body whose interests it professes to represent, to criticize both its constitution and management. As it appears to me, the Institute, as at present constituted, only exists for the benefit of the elder members of the profession, viz. the fellows, the younger men being carefully excluded from all participation in its management. The grievance would not, however, be so great if those who assume the management of the Institute really did their duty to the profession, and were foremost in every good work set on foot for the benefit of our art; but such, unfortunately, is not the case, but the reverse. Take, for example, the Architectural Exhibition,—an institution which I do not hesitate to say has done more real good for the cause of architecture during the short period of its existence than has been effected by the Institute since its establishment twenty years since; and it is anything but creditable to the Institute that to this hour the Architectural Exhibition has not received one farthing support from it, although it was well known that for a considerable time its usefulness was impaired by the pecuniary difficulties with which it was encumbered.

The younger men in the profession have also a special ground of complaint against the Institute, considering the way they have been treated by that body. It is all very well for the Institute to express sympathy for the Architectural Association; but if the Institute had done its duty there never would have been any necessity for the establishment of the Architectural Association. Ten years ago, when the Architectural Association began its career, it might have been possible for its members to have carried on their studies under the guidance of the Institute, but most of those who were then students are now in practice for themselves, and do not now stand in need of the proffered sympathy of the Institute, which then would have been gratefully acknowledged; and while expressing myself thus, allow me to reiterate my humble testimony to the sympathy and support which you, sir, personally afforded the Architectural Association when it began its career. I am induced to refer to this subject because I consider you have been unjustly spoken against by some of our friends at Lyon's Inn Hall, who, in consequence of their having but recently joined our society, cannot be supposed to have such an intimate knowledge of the real state of the case as myself and others, who, as you know, were of the first in bringing about the establishment of the Architectural Association.

Depend upon it, sir, the Institute will never enlist the active earnest co-operation of the younger men of the profession until they abolish the invidious distinction at present existing between associates and fellows, and admit all alike, who, from ascertained competency, are qualified to act as architects, into full fellowship, and a due share of the management of the Institution. In my opinion, sir, the seven years' practice qualification for full fellowship is one of the most absurd as well as the most unjust that can possibly be conceived, and the abolition of it would be the most effectual means of drawing into the Institute all other societies at present existing independent of it.

As a practical illustration, suppose, for example, the case of two youths fresh from school, of equal age, and both of average abilities, articled in the same office,—the one the son of rich parents, and the other, with nothing to depend upon for advancement in after-life but his own unassisted talents. The term of articles expire, and the one, our well-to-do friend, mounts a brass-plate on his door, and dubs himself "architect and surveyor;" and, as the phrase goes, "gets into practice." The other, perhaps the most competent of the two, from want of interest to push him forward, is glad to engage with the other as his managing clerk. In progress of time our well-to-do friend is duly admitted a Fellow of the Royal Institute of British Architects, while his brother pupil, and now managing clerk, remains, as far as his status in the profession is concerned, in exactly the same position as when he was first out of his articles. This is no imaginary case, and I appeal to the experience of your readers as to whether I am over-stating it. If, then, what I assert is true, is it fair, is it just, that the distinctions maintained in the Institute should be continued?—or is it likely the younger men of the profession will earnestly and actively support an institution based upon such exclusive and selfish principles?

Only let the Institute so far liberalize its constitution, and admit all who are justly entitled to the distinction into full fellowship, and let personal competency alone be the test, and a practical solution of the diploma difficulty would be obtained; because the recognition by the Institute, or such a society as the Institute might become, after due examination, would be a virtual qualification for an architect to practise, and would justly entitle him to consideration and respect as such. But constituted as the Institute is at present, its highest

* Read at the Architectural Museum, Canon-row, Westminster, June 23, 1856. The publication of Mr. Burges's paper on Leadwork, which was read previously, has been delayed by the preparation of illustrations.

grade of membership confers no real honour, because to obtain it, good fortune rather than talent is what is most required by the candidate. A man has only to practise as principal seven years, I ought rather to say ostensibly practise, because he may carry on his business by deputy, and it makes no difference as to his qualification; and herein lies the chief injustice of the case, because it is notorious that many men who have a high reputation for talent as architects are the greatest Pecksniffs in existence, and are wholly dependent upon other and younger men for the reputation they possess; whereas, if a personal qualification was made the test by which a man became a fellow of the Institute, quackery would most effectually be kept out of the profession.

I have addressed myself to you, not so much because I can expect you will concur in all that I have said, but rather because I regard the *Builder* as the most suitable medium for discussing all subjects connected with architecture and the welfare of its professors: on this ground, therefore, I trust you will give insertion to my remarks. CHARLES GRAY.

THE LATE MR. GEORGE GWILT, ARCHITECT.

MR. GEORGE GWILT, F.S.A. whose conscientious restoration of the choir and tower of the church of St. Mary Overy, in the borough of Southwark, and of the Lady Chapel belonging to the same edifice, entitles him to the grateful remembrance of archæologists and of all who take interest in the conservation of our ancient ecclesiastical architecture, expired on Thursday, the 26th ult. at his house in Union-street, Southwark.

Mr. Gwilt was the elder of two sons of Mr. George Gwilt, an architect and surveyor, also of St. Saviour's, Southwark, where his family have resided more than a century; the younger son being Mr. Joseph Gwilt, the well-known author of "The Encyclopædia of Architecture," and other important works.

Mr. Gwilt, sen. was surveyor for the county of Surrey; and, amongst other buildings, he erected Horsemonger-lane Gaol and Newington Sessions-house. He died on the 9th December, 1807. His son George was born on the 8th of May, 1777, and he was consequently in his eightieth year at the time of his death.

He was brought up to his father's profession of an architect, and succeeded his father in his professional practice on his death. His chief work, and that with which his name will always be worthily associated, was the restoration of the choir and tower of St. Mary Overy's Church, already referred to, and the Lady Chapel, which Mr. Gwilt executed with much taste and judgment; though as regards the choir and tower, at a very great expense to the parishioners of St. Saviour, who, although proud of their fine church, were not well pleased to have incurred a debt of 35,000*l.* for the restoration of a part of it. This work was performed between 1822 and 1825. With Mr. Gwilt such works were labours in which he delighted, and when, through the indefatigable exertions of the late Mr. Thomas Saunders, F.S.A. the Lady Chapel was rescued from destruction, and its restoration effected by means of a public subscription, exceeding 3,000*l.* Mr. Gwilt liberally undertook the professional direction and superintendence of the work, and performed it gratuitously.

This was completed in 1833, and the late Mr. Carlos, in a short description of it in the *Gentleman's Magazine* (March, 1833, p. 254), says, "When the former appearance of the building, dilapidated by the effects of time and neglect, and injured by partial and tasteless repairs, is forgotten, and the masonry of the new work shall have lost its freshness, then will the design be viewed with even greater satisfaction than at present, and few persons, strangers to the former state, will conceive that the antique-looking building before them is a restoration of the nineteenth century. Every praise is due to Mr. Gwilt for the scrupulous accuracy with which the mouldings and detail of the former design have been copied, and equally so for the care and attention which he has bestowed on the restoration of those parts which had been entirely lost: of this the gables are instances: of these only two remained in anything like a perfect state."

Mr. Gwilt was admitted a fellow of the Society of Antiquaries, on the 14th of December, 1815; but although he delighted in the collection of antiquities, and possessed a valuable store, as well of objects of interest as of information of a varied character, we do not find that he ever contributed anything to the "Archæologia."

He was, however, an occasional contributor to the *Gentleman's Magazine*, and amongst other articles there are two valuable communications from him in March and June, 1815 (pages 244 and 513), on the remains of Winchester Palace, Southwark. Letters from him have at different times appeared in our own journal.

We hope that his collections will not be dispersed without an opportunity being afforded of giving the antiquarian world an account of them, and Mr. Gwilt's own observations cannot but be of the greatest value in their illustration.

Mr. Gwilt had three sons and four daughters. Of the sons, George, the eldest, who died at an early age, was a young man of great promise in his profession of an architect. His early loss was much lamented. The second son, Charles Edwin, also an architect, died early. He contributed to the "Archæologia" an Account of the Remains of Part of the Prior of Lewes's-house, in Carter-lane, St. Olave's, Southwark (vol. xxv. p. 604). The third son, Alfred, survives.

For many years Mr. Gwilt had been subject to a painful complaint, but notwithstanding that circumstance and his great age, he was to the latest period of his life devoted to antiquarian pursuits; and so lately as the 12th of June last, he attended the meeting of the Surrey Archæological Society, at Croydon, being then in tolerable health. The loss of Mrs. Gwilt, however, who died but a few weeks before him, had been severely felt by him.

He was buried on Monday, the 7th inst. by special authority of the Secretary of State, in his own vault, on the south side (outside) of the choir of St. Saviour's.

WOOD, THE ARCHITECT.

THE BATH QUARRIES.

As your correspondent, "Wm. J. Green," has fallen into error in his communication in the last number of the *Builder*, allow me to set him right. He refers to Wood's "Essay towards a Description of Bath," as *published by himself*, in 1765. My copy of the essay, the second edition, was published in 1749. At all events, Wood died in 1754. As his obituary, which appeared in the *Bath Journal*, of May 27, in that year, is a curiosity in its way, it may interest your readers if given at length:—

"Last Thursday morning, about three o'clock, died, after a long and tedious illness, in the fiftieth year of his age, John Wood, Esq. one of his Majesty's Justices of the Peace for the county of Somerset, celebrated for his designs, plans, and skill in architecture, more particularly those in this and a neighbouring city,—the second great mercantile trading city in the kingdom: all which is well known to be the effect of his great genius, as well as undefatigable* study and application in this noble and useful science. Amidst a world of *calumnies*, *falsehoods*, and *discouragements*, which he bravely surmounted, he not only raised himself in the esteem of his superiors, but, in the compass of a few years, by an honest and commendable industry, obtained a handsome competency for himself and family. In a word, he had no enemies but those who either envied him themselves, or went too far in crediting the *defamatory reproaches* and *scandal* of others."

Your correspondent also states that the existence of a tram-road from the quarries on Hampton Down, "plainly shows the site of the quarries in possession of Mr. Allen." In an old print of Prior-park, which is now become rare, Allen's tram-road is shown to be a portion of the present carriage-road leading from the city of Bath to the mansion, and a stone waggon is represented as descending on the rails, while a coach, drawn by two horses, is proceeding up the hill in close proximity. The tram-road referred to by your correspondent was constructed for the purpose of conveying stone from the Hampton Down quarries to the Kennet and Avon Canal, which was not opened for traffic till nearly the close of the last century. Allen's wharf was on the banks of the Avon, nearly opposite the present Bath Railway Station; while the wharf at the termination of the Hampton tram-road was nearly three miles off, and the same distance above where the river Avon is navigable.

BATHONIENSIS.

* In original, as are the italics.

PROPOSED MEMORIAL CHURCH AT CONSTANTINOPLE.

WE are requested, by the honorary secretaries of the committee for building the memorial church at Constantinople, to give publicity to the following letter received by them from the honorary secretaries of the Royal Institute of British Architects, with the hope of facilitating the acquisition of the information therein suggested as desirable to be obtained:—

"We are instructed by the Council of this Institute to offer you their congratulations on the prospect of a church being erected in the East, which shall be a record at once of the faith and of the art of Western Europe.

The Council have urged on their fellow members of the Institute the propriety of vindicating, in their response to your invitation, the great capability for erecting works of a monumental character which they believe English architects of the present day to possess; and they will feel much gratification in co-operating in any other manner in the furtherance of your views.

As allusion is made in your programme to the qualities of the local materials, they would suggest that much practical advantage might result from your obtaining, if possible, specimens, with the prices and particulars of their relative excellence and durability.

The designs might also be made more appropriate for the site determined on if reference could be made to a map, showing the position, aspect, approaches, and extent, and to photographs, exhibiting the scenery and buildings of the immediate locality. Practical information as to native peculiarities of construction, and the modes of letting works to be executed, would also assist in rendering the results of the competition more satisfactory than they could possibly prove in the absence of such details.

Impressed with this feeling, the Council propose procuring, as far as they may be enabled, from their foreign correspondents, information of this kind for the benefit of those members of the profession who may be induced to compete.

In conclusion, the Council desire to express the pleasure with which they will receive and exhibit in these rooms specimens of materials, maps, photographs, price lists, and whatever farther practical particulars you may think it desirable to obtain from Constantinople; all of which, when received, would be at once brought under the notice of the profession.

With every hope that the results of the competition may prove satisfactory to the promoters, and favourable to the talent of this country,

We have the honour to remain," &c.

NATIONAL ORPHAN HOME, HAM, SURREY.

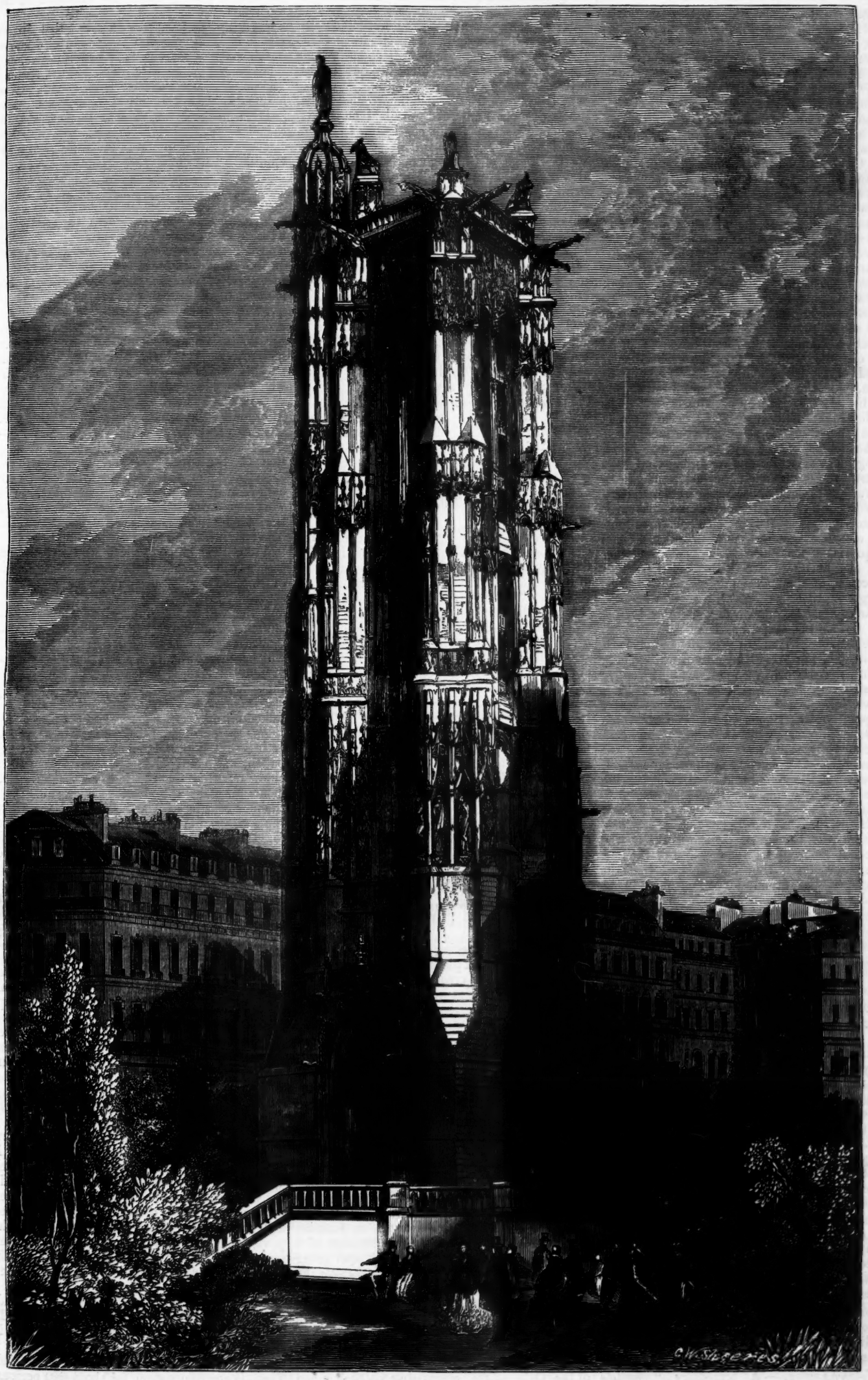
THE first stone of the new building of the National Orphan Home, Ham, Surrey, was laid on the 2nd inst. by the Marquis of Clanricarde (who presided in the absence of H.R.H. the Duke of Cambridge, through illness). Five hundred friends of the Institution sat down to a *déjeûner*, and at the table a collection was made of more than 1,000*l.* for the benefit of the Institution.

The new building is planned to accommodate 200 children, and contains on the ground-floor, two schoolrooms, 40 feet by 20 feet, with class-rooms adjoining each; two dining-rooms, 45 feet by 24 feet each; two lavatories; separate rooms for the matron, master, and assistants; also separate rooms for the committee, chaplain, secretary, lady and gentlemen visitors' rooms, &c. In the rear of the main building are the kitchen and offices. On the one and two-pair floors are the dormitories, with bath-rooms fitted up with hot and cold water. The two-pair floor is also fitted up with infirmaries, with spacious lead flats for the invalids to take airing exercise upon. The architect is Mr. E. C. S. Blake.

TOWER OF ST. JACQUES LA BOUCHERIE, PARIS.

ALL visitors to the old part of Paris will remember the picturesque tower of the church of St. Jacques la Boucherie. The church itself, of early foundation, was destroyed at the close of the last century, leaving only the tower, which was appropriated for the manufacture of shot. In 1836 it came into the market, and was purchased by the municipality. Recently it has been restored, and plantations formed around it, giving it the aspect shown in our engraving.

M. Guilhermy, quoting M. Vilain, the historian of the church, says the tower was commenced in the reign of Louis XII. 1508, and was not completed till 1522. The statue of St. James, the major, on the summit of the turret, thrown down on the pavement by the revolutionists, has been restored. Large sculptured animals occupy the other angles of the tower.



THE TOWER OF ST. JACQUES LA BOUCHERIE, PARIS.

PROVINCIAL NEWS.

Lynn.—The greater part of the new workhouse, in place of that which fell about two years since, has been finished. Messrs. Medland and Maberly, of London, are the architects; and Mr. Bennet, of Lynn, the contractor. The portion already completed is the main building, comprising the day-rooms and dormitories for the adult male and female paupers, the masters' and matrons' apartments, domestic offices and stores, and the dining-room and chapel, together with the work-rooms, washhouses, laundries, &c. and the boundary-walls surrounding them. The schools and dormitories for the children, forming a continuation of the main building, and the entrance buildings to the infirmary, are now in progress, and the erection of the lunatic ward will complete the design. Internally the chief feature is a corridor, running three ways from the entrance wall, viz.—north, east, and west, somewhat in the form of a cross. By this means it is intended that there shall be complete supervision over the whole building. The chapel has an open roof, with a large window at each end filled with tracery of the Perpendicular period of Gothic architecture. Warming by steam, with the ventilation, have been carried out by Messrs. Haden, of Trowbridge. The buildings externally may be said to partake of the Domestic style of architecture prevalent in the reigns of the Tudors. There is an arrangement of white and red bricks round the windows and doors and at the quoins and gables, and various designs of crosses and other devices are worked in red, white, and black bricks over various portions of the principal elevations. The entrance buildings now erecting contain the guardians' and clerk's apartments, together with the porter's-lodge and receiving-rooms. The centre of the main buildings is crowned by a large ventilating turret with a gilt vane, and on the extremities of the wings are other turrets of a similar character, but smaller dimensions. The chimney-shaft, upwards of 70 feet in height, is built of red bricks, with bands of white, plain, and in patterns worked at intervals up its entire height.

Spalding.—The foundations of the new butter and poultry-market houses have been excavated and some progress made in forming solid concrete for the erections.

Norwich.—At a meeting of the town council, last week, it was stated that an attempt is being made to get up a company to erect a new fish-market.

Chelmsford.—At the Essex quarter sessions, just held, the committee on the works at the Shire-hall reported on the erection of the new stairs, and stated they had ordered that the corners of the grand jury-rooms should be rounded off, in the hope of improving the hearing. The estimate for one part of the work had been 150*l.*: it was completed for 127*l.* and the whole expense of what was done amounted to 366*l.* 11s. There were other matters of importance to be attended to in the building, and the committee was continued.

Hornchurch (*Essex*).—The opening of the new parochial schools in this place took place on the 29th ult. A description of the design for the buildings appeared in our journal on the occasion of laying the foundation-stone. Mr. F. Beesley was the architect. The work has been carried out by Mr. J. S. Hammond, of Romford, at a cost of about 1,400*l.* realised by voluntary subscriptions.

St. Albans.—Tenders for the new corn exchange at St. Albans were to be received on Tuesday, the building to be either in Huntingdon white bricks with plinths, friezes, arches, &c. of Corsham Down Bath stone, or the whole of stone. There will be two entrances, one at each end, and seven windows on each side. Besides the light thus admitted, the segments in the ceiling will leave space for a half glass roof. It is intended to have the building finished during the present year.

Bedminster.—A new school was opened at Bishopsworth on Tuesday in last week. The building contains a school-room for 150 children, a class-room, and a master's residence.

Wolverhampton.—A temporary "people's park," intended for the recreation and amusement of the working classes of this town, was publicly inaugurated with some ceremony, on Monday in last week. The temporary park is a field of between eight and nine acres, lent until Christmas next by the proprietor. It is situate at Newbridge, on the Tettenhall-road, about a mile from the Market-place. Benches, quoits, &c. have been gratuitously provided.

Birmingham.—The foundation-stone of St. John's Schools, Ladywood, was laid on Thursday before last on a site contiguous to Monument-lane. The buildings will be erected by Mr. S. Briggs, of Birmingham, from designs by Mr. Teulon. It will afford accommodation for about 600 children. The estimated cost of the schools, with residence for master, &c. is 3,000*l.* and of this sum 2,652*l.* have been already subscribed. The land on which the schools are about to be erected has been partly given, partly purchased, 600 yards of it being given, and 1,065 yards purchased at a cost of 418*l.* The contract for the building of the schools, &c. amounted to 2,338*l.* a further expense of 244*l.* being incurred in the architect's plans and in law charges; making the total of 3,000*l.* The schools will be adapted for 200 boys, 200 girls, and 150 infants. The boys and girls' schools will be separated by a moveable partition, and the principal school-room, being 90 feet by 31, will be available for lectures, congregational gatherings, &c. The infant-school will be 40 feet by 20, and entrances to the different schools will be provided from different streets. The teacher's residence is to be erected in the immediate vicinity, where a site has also been secured, for the erection of other educational buildings, if required.

Warwick.—A meeting of the shareholders in the Warwick Corn Exchange was held on Saturday before last, to consider the propriety of enlarging the building, and increasing the capital of the company. The chairman stated that the directors had had two plans before them, one for carrying out the building to a greater length, but at the same width as at present; and the other for erecting a large room at the end of the present one, and completing it in an easterly direction, to the extent of the ground belonging to the company. By the first scheme they would get twenty additional stands, by the other twenty-eight. The estimate for the smaller extension was something like 1,000*l.*; for the larger, 1,600*l.* It was resolved to adopt the former plan, and to increase the capital of the company by 1,500*l.* in 750 new shares.

Liverpool.—The water from the new works at Rivington has not yet been brought to Liverpool, though it was to be ready for delivery by May, 1856. The deepening of the existing wells, to keep up the supply till the water is received from Rivington, has had the effect of draining dry several private wells in the outskirts.

Oldham.—The opening of the Victoria market, in Tommyfield, took place on Saturday last. The market has been erected by a company of sixty shareholders, at a cost of 5,000*l.* with power to increase their capital to 10,000*l.* and sell the market to the corporation if deemed desirable.——The new conduit of the Oldham Waterworks, leading from Besom Clough to the reservoirs of the company at Strinesdale, was also opened on Saturday.

Darwen.—The new Roman Catholic school at Over Darwen was opened on Sunday before last.

Yarm.—This town was lighted up with gas for the first time on 27th ult. The contractor was Mr. Wm. Wilson, of Castleford.

South Shields.—Mr. Ranger, superintending inspector to the General Board of Health, visited South Shields, last week, to examine the plans and sections for the drainage of a large portion of the borough, and after going over the district, says the local *Gazette*, he entirely concurred with the views taken by Mr. Thompson, the borough surveyor. Since then the plans have been forwarded to London in order to receive the consent and seal of the General Board of Health. The work will be commenced forthwith.——The lower portion of the Ogle estate, comprising Catherine, and all other side streets, has been sewered and drained, as well as the footpaths widened, and the streets paved, under the direction of the town surveyor.

Forres.—The local *Gazette* states that Forres House is being renovated. The oriel windows in the south-west front have been finished, and those corresponding at the east are in progress. The porch or porte-cochère is to be enlarged to harmonise with the other alterations. The internal finishings are said to be conducted on the most approved style of modern comfort and elegance,—pipes for water, hot and cold, fitted up,—with baths and other accommodations.

CHURCH-BUILDING NEWS.

Bourn.—The various works in connection with the improvement of Billinghay parish church being now complete, it is to be re-opened on the 22nd instant. Besides the sittings and furniture (Mr. Jordan, the contractor), an organ is about to be erected.

Peterborough.—The decoration of the altar ceiling of the cathedral, under the direction of Mr. Scott, is nearly completed. In the centre will be represented the figure of our Saviour and his twelve Apostles, six on each side. The whole is encircled by an elaborate border, around which is written, "I am the vine," &c. The vine has the appearance of being suspended in the air. The pattern is too large.——Progress is being made towards the completion of St. Mark's Church. The builders (Messrs. Ellis and Son) expect that the church will be ready in September. The workmen are busy in the interior dressing off the stone pillars and arches. The roof is also being stained, and the last coating of plaster laid on. The large window at the south entrance will contain the arms of each bishopric in England and Wales in stained glass, presented by Mr. Whalley, late M.P. for this city, and this will be the only stained window in the church. The tower has nearly reached the intended height, and if the design be carried out, will be surmounted by a spire, but the funds at present in hand, it is feared, will not admit of this.

Lymington.—A new church for Lymington is talked of.

Basingstoke.—A meeting of the Town Council, acting as the Burial Board for the town and parish, was held on 1st inst. when the town clerk reported that he had caused advertisements for plans, specifications, and estimates for the new cemetery to be inserted in the *Times*, the *Builder*, and the local papers, and laid before the meeting a draft memorial to the Lords of the Treasury, praying them to approve of the Burial Board borrowing a sum not exceeding 3,500*l.* for the purpose of providing the new burial-ground, which memorial was settled and approved, and directed to be forwarded to the Lords of the Treasury. It was then resolved that the burial-ground for Nonconformists should be on the east side of the new cemetery.

Frome (*Somerset*).—The parish church has been re-opened. The restorations of this church were commenced in 1846. An attempt was then made to bring back the chancel to what it used to be in former times. When the authorities came to overhaul the place they found that the parish engine occupied one chapel, and that the bell-ringers had taken possession of another. The chancel was taken down, and newly roofed in carved oak. There were five chapels discovered and restored. Several memorial windows were put in. A new communion rail was erected. The chancel is now fenced off. From the body of the church all traces of the galleries have been removed: the whitewash and plaster, &c. have been taken away, and a number of arches have been scraped and rubbed up. After the galleries went the pews, and the high-backed pews have been replaced by narrow, low-backed benches, without doors. Over the altar is a large stained glass window.

Devonport.—Wycliffe Chapel, for Independents, was opened on Thursday in last week. It is situated in the principal street of the town, is in the Early Pointed style, and consists of a nave and aisles, with a vestry at the south end. There is accommodation for about 640 persons, including the gallery (over the entrance vestibule), which is intended for the poor and the

children of the schools. The nave is separated from the aisles by an arcade of five bays, with arches springing from circular stone shafts (having moulded caps), and supporting a plain clerestory. The north end of the nave has a large five-light geometrical window: stained glass has been used sparingly in some of the smaller windows. The roofs are open and high pitched, and the timbers (together with the pews and doors) are stained, and will be varnished. The pews are to be uniformly cushioned throughout. Adjoining the chapel on the east side is a parsonage, containing ten rooms; and on the basement floor is a school-room for 400 children, with class-rooms and chapel-keeper's apartments below the aisles. These are, however, at present in an unfinished state: so also are the boundary walls. The materials used for the walls were the native limestone, with Bath stone dressings. The total cost of chapel, school, and house, exclusive of boundary walls, has been about 2,000*l.* The architect was Mr. James Hine, of Plymouth.

Barmouth (*Wales*).—On 24th ult. the new Wesleyan chapel in this town was opened for divine service. The chapel stands in the centre of the town. The contractor, designer, and builder was Mr. John Evans, of Llanfaircareinion.

Coventry.—Holy Trinity Church was re-opened for divine service on Sunday before last, after being re-seated and repaired. Mr. Scott was the architect, and Mr. Ruddle, of Peterborough, the contractor for the re-seating. Additional accommodation is provided by the alteration. The south side of the nave, from the pulpit to the west door, is free and unappropriated.——About 1,300*l.* are already promised towards the St. Michael's Chapel building fund.

Orston.—The following were the tenders lodged for the erection of a vicarage-house at Orston, near Nottingham. Mr. Baily, of Newark, architect:—

	Brick.	Stone.
T. Lane, Newark	£930	£965
J. S. Ferguson, Nottingham	920	...
Marshall and Henderson, Newark	914	944
C. C. and A. Dennitt, Nottingham	899	859
Wilson and Ashton, Retford	847	876
James E. Hall, Nottingham	860	840

Alvaston.—The new church of Alvaston, re-opened on Wednesday week, consists of a nave of four bays, north and south aisles, chancel and vestry, with a tower at the west end, the principal entrance being by a porch on the south side. The walls are of Duffield stone, and the dressings of Sydnope: the walls in the interior are lined with Ashlar, boasted on the face, with Bath stone for the carvings. The building is in the Gothic style of fifteenth century, the chancel partaking of the style of the fourteenth. The roofs are formed with trussed principals, resting upon carved stone corbels, the timbers being chamfered, stained, and varnished, with open ends throughout. The entire width of nave and aisles, measured in the interior, is 48 feet, and the length from the west wall of the tower to the east end of the chancel, is 80 feet, the chancel being 20 feet. The tower rises to a height of over 60 feet, and has at each of its four angles a pinnacle surmounted with a gilt vane. In the old edifice there were 179 sittings: in the new one there are 379—199 free. The chancel is paved with Minton tiles. Mr. H. I. Stevens, of Derby, was the architect, and Mr. G. Thompson the contractor. The original contract was for 1,400*l.*; additions afterwards increasing it to 1,605*l.* 18s. 9d. exclusive of heating apparatus, &c.

Keighley.—The new Independent chapel at Keighley, erected from a design and under the superintendence of Mr. Simpson, of Leeds, was opened on the 25th ult.

Hawes and Sedbergh.—The foundation of a new Wesleyan chapel has been laid at Hawes. The cost of the erection will be about 500*l.* The chapel will seat 350 persons.

Armley.—The foundation-stone of a new Primitive Methodist chapel and school-room was laid on Saturday before last at Armley. The chapel will contain sittings for 300, and the school-room will accommodate 200 children.

Skipton.—It has been suggested that a subscription should be raised for the purpose of restoring the ancient parish church of Linton, which is in a somewhat dilapidated condition. It is estimated that 500*l.* would go a long way towards the restoration.

Bedlington.—A piece of land, six acres in extent, having been given by the Bishop of Durham for a new burial ground at Bedlington, a rate and subscription were entered into for funds to erect a chapel, at an estimated cost of 260*l.* and for fencing, draining, &c. in all about 1,000*l.* The ground was consecrated on the 1st inst.

Wigan.—A stained glass window has been placed in the parish church of Standish, by Mr. C. B. Clayton, of Adlington Hall, in memory of his only son, who fell before Sebastopol. The subjects are the baptism, crucifixion, and ascension of our Saviour.

Carlisle.—The United Presbyterian church, Fisher-street, Carlisle, according to the local *Journal*, was opened for public worship on Sunday before last. The new church occupies the site of the former structure. It is built of brick, with a front of Prudham stone. Above the entrance is a stained glass window, presented by a few friends, composed of one large and two small perpendicular lights. Surmounting this is a circular window with designs emblematical of the Trinity. There are two flights of stairs leading to the gallery, and lighted by a couple of windows of cathedral glass. The interior of the church is lighted principally from the south side and by three oblong windows at the east end. The flooring is of wood, and the pews of stained wood. The church is heated by means of hot water pipes. The ceiling is flat, and is divided into panels by the cross beams supporting the roof. Beneath is a school-room, capable of holding about 200 children,—the church itself being calculated to accommodate about 600 persons. The structure is from the design of Mr. Stewart, architect. Mr. T. Jones was the builder: Mr. David Hall executed the woodwork; Mr. Rowell the painting and glazing; Mr. Ormerod the plastering; and Mr. Thompson the plumbing and gas fittings. The estimated cost was 1,000*l.*

Glasgow. — St. Aloysius's Roman Catholic chapel at Springburn was opened on Sunday in week before last. The architect was Mr. Charles O'Neil.

Drogheda.—The consecration of Hackett's-cross church took place on Sunday before last, according to the local *Argus*. The church is situated in a small hamlet. In the vicinity are the remains of the ancient church of Clogher, and the ruins of Glasspistole castle, and almost within sight is the spot upon which St. Patrick is believed to have landed. The chapel, built by Mr. Murray, of Dundalk, is in the Early English style, having twelve lancet windows on its sides, and in the chancel a large window, filled with enamelled stained glass. The proportions are 110 feet by 34 feet. The interior of the roof is open: the roof timbers are ornamented with Gothic tracery—pendants between the rafters, and wood panels stained of an oak colour. The walls are built with a smooth and variegated stone like marble, obtained at Clogherhead.

WHITEWASH ON SLATE.—PAINTS.

A CORRESPONDENT of the *Builder* has lately inquired for "a method of fastening whitewash upon slate," the object being to lower the temperature of the roofing by causing the solar rays to be reflected from its surface. I think a modification of the "lacboracic paint," as noticed in your journal for September 29th, 1855, would meet all the requirements of the present case: however, as I am told that the number in question is now out of print, I beg leave to make a few extracts from my former article on behalf of your correspondent.

The "lacboracic paint" is made by "boiling together for half an hour—Commercial shell-lac, 1 lb.; ditto borax (Tincal), 1½ lb.; and water, 10 lbs.=1 imp. gal.; allowing the solution to stand until quite cold, and then straining through bags of some strong, coarse material. The solution thus prepared should be mixed with from 6 to 8 lbs. of finely-ground dry white-lead, and raised once more to the boiling-point, with constant agitation. When cool, it may be stowed away in casks or carboys (or any description of vessel which will perfectly exclude the air), and will be fit for use at any time, with the simple preparation of stirring it well up. . . . . The only rule necessary for lacboracic painting is,—give the paint a stir every time you put your brush into it. . . . . The residue of crystallized borax and undissolved shell-lac left in the straining-bag, if boiled again in a small quantity of water, may be treated and made use of in the same way as the former solution."

If your correspondent uses the brushes secured by twine and glue for the lacboracic paint, their speedy disintegration will be the consequence: he may prevent this by paying attention to the following paragraph, which I extract from my second article upon the subject (*Builder*, Oct. 18, 1855):—

"Pour a quart of boiling-water upon 1 oz. of powdered nut-galls, and, when cool, pour off the clear, supernatant liquid: soak the brushes in the same for forty-eight hours, at the expiration of which time the glue they are fastened with will be entirely converted into leather, and consequently they are then quite unalterable by either oil or water paints."

For your correspondent's present purpose white lead would, I presume, be too expensive; but as there are numerous other whites and lime compositions to be had at a cheaper rate, he may readily choose one for himself.* I should myself recommend sulphate of baryta (constant white), which is easily prepared from "heavy-spar," by first digesting the pulverized mineral in dilute sulphuric acid, and then washing and grinding it.

My late experiments lead me to infer that the best people to apply to for sulphate of baryta are the manufacturers of white lead, as the former article appears to be a constant component of the latter. I may mention here, that in a series of nine analyses of different samples of white lead, *all* contained sulphate of baryta, the amount of adulteration varying from about four to twenty-two per cent. of the whole (the samples being ground in oil). If I ever meet with a specimen of the pigment *quite pure*, which is extremely improbable, I shall certainly publish the seller's name and address. The samples above-named were all "of the finest quality," "warranted genuine," "pure," &c. &c.!

The effect of whitewash upon slates would undoubtedly be to retard the absorption of radiant heat; but should the sun's rays continue to bear upon the roof, and after a time render it hot, it would (on the removal of the source of heat) take a much longer time to cool than if the surface of the slating was in its normal state.

I make this remark without comment, as worthy of consideration by your correspondent.

WENTWORTH L. SCOTT.

HOUSES AND GARDENS FOR THE PEOPLE.

To you, sir, who have so warmly sympathised with the condition of the poor, and so ably advocated their cause, no apology, I am sure, will be required for requesting the admission into your valuable columns of the following remarks on a subject which I, too, have deeply at heart. The larger half of my life has now gone by, and fain, ere I visit the invisible land, would I discern some material token of amendment. Something might be done. Something I feel assured *ought* to be done, to benefit more effectively the condition of the multitude.

HENRY MCCORMAC, M.D.

A great work awaits society, if not in our own, at least in the coming generation. The construction and reconstruction of the dwellings of the people are most urgently required. Houses are not adapted for health, use, or cheerfulness, as they ought to be. The general deficiency is unspeakably great. Either there is no provision, or no adequate provision, for the admission of light, air, and effective sewerage. Health and cheerfulness are not sufficiently promoted. The renovation of the houses of the multitude is of instant necessity. The executive, suitably enlightened by architects, mechanists, and medical men, should constrain the erection of suitable abodes. The dwellings of the working classes, whether they be the worn-out residences of the opulent, or houses built on speculation, are bereft of almost every desirable

* Possibly common whiting, or even old plaster images ground very fine, would answer.

convenience and amenity. Insects, vermin, dirt, and foul air alike infest them. Yet health, cheerfulness, and grace, as far as possible, should characterise every human abode. These are desirable in the first instance, and they would be found cheaper in the end. Every house should afford the thoroughest access to light and air. No living-room, no sleeping-chamber should have a borrowed light or borrowed air. Each of these all-important requisites should be directly supplied from the great fountains of both.

Every house ought to stand a little above the general level of the soil. No foulness, no dampness, should find access from below. Every possible provision, and in every the humblest dwelling, should be made for subserving cleanliness, decency, and propriety. The conditions of our animal nature impose these requirements imperatively, short at least of the alternatives of discomfort and disease. Every house might be rendered fireproof. It will be said that no house can be rendered absolutely fireproof. Let houses, then, be rendered approximately so. That there are ways and means of accomplishing this, every builder, every architect, is well aware. It is an outrage on human nature to construct abodes unnecessarily liable to fire. There are certain family requirements which the very humblest structure should not be without. At the head of these, perhaps, are sufficient sleeping accommodations. Exclusive of the living-room, which, in the lowest class houses, must of necessity be "kitchen and parlour and hall," there are required absolutely, for each several family, *three* sleeping apartments, one for the parents, one for the sons, and one for the daughters. The great bulk of the population have only two rooms for every purpose; a cooking-room and a sleeping-room; no further accommodation, no farther privacy! Some have only *one* room for *every* purpose. It is a subject on which it is impossible to enlarge without being awakened to feelings of sorrow and indignation. *Every window in every room should be made to pull down.* The whole casement should be provided with a double frame, so as to open on one side, like a door on hinges, and so allow a pane to be set in, or the glass to be cleaned, without the necessity of mounting a ladder, or standing or sitting outside for the purpose. A large and costly establishment that I am acquainted with has been recently fitted up in such wise, that of a multitude of windows not one can be cleaned, nor can a pane be replaced, without rearing a ladder to the different stories, and in all weather, outside, for the purpose! The absurd, costly, and dangerous practice of puttying up panes and going outside to clean windows, should be put a stop to. A simple arrangement, intelligible to every one—stripes of Indian-rubber and slips of wood secured with brass screws—should be substituted for the former, while windows, at once to pull down and open as doors, as aforesaid, would do away with the necessity of the latter.

Every house, even of the very humblest class, should have a washing-room, where there might be a stone or wooden bath and a good large drying-closet. This I would manage by having the kitchen fireplace in the party-wall instead of in the end wall. It is quite obvious how there might be a large boiler to supply both kitchen and washhouse. A space, too, could be boxed off behind the fire for the drying-closet, with a wooden horse or two to slide in and out at pleasure. The Americans have constructed a capital washing-machine, which I have had copied. It consists of an oblong box, raised by supports at the ends, above the ground. There is a lever above, at a certain height, hinged to a support in the middle. At one end of the lever is placed an iron equipoise weight. About the middle half of the near end depends a swinging rack, to which, by a simple contrivance, are attached the soiled clothes. By means of the weighted lever the clothes are plunged up and down in the hot lye of the box or tub, floating in which 150 balls of fir-deal, each 2½ inches in diameter, effectively discharge the duties of the washerwoman's wrists and fingers. This machine can be made double or on any scale of magnitude. It can be worked by any description of power, and really, cheaply realises a great saving of labour. A wringing-machine, for which I would propose a simple screw-press, would farther aid the poor housekeeper, and assisted by her family, these or other simple machines, among which a mangle must not be forgotten, would enable her, without the risk and expense attendant upon leaving her own house, to procure a copious, almost daily, supply of clean linen, with what unspeakable comfort and advantage it is needless to insist upon. Of course, these little arrangements, so simple yet so important, would imply an ample supply of water at constant high pressure, gas where practicable, and good drainage. A cinder-riddle, too, might be made to work, without the nuisance of dust, in a covered recess, with a winch-handle, which should impart a hopper-motion. Farther, a knife and fork cleaner, and likewise a boot and shoe polisher. This last only implies a brush-covered cylinder, with raised sides, working by means of a winch-handle in a close box, the periphery being made to open, so as to introduce the boots and shoes. The inner side of the cylinder might be arranged to clean shoes. Similar machines, but on a larger scale, would effectually cleanse clothes and carpets, without the noise and dust which at present accompany that disagreeable process.

The proper arrangement of a house, then, comprising air, water, and sewerage details, even on the most moderate scale, would imply the co-operation of distinct orders of experience and talent, not to be met with in one person. First, we must have the tasteful architect to plan, and the skilful builder to execute. The machine-maker and the mechanic must apply, in well-devised domestic appliances, a little of that skill which now runs to waste, as it were, in a thousand directions, rarely of equal importance. Lastly, the physician should see that no injurious condition should be present, and that nothing calculated to promote health and cheerfulness should be absent. *No house should be built without the direction of an architect*, and yet how many esteem themselves competent to act as architects. The fact is, that the great majority of human abodes are constructed without any—or almost any—reference to architectural or mechanical skill, or medical control. Now, model dwellings would tend to obviate all this, and a class of such being once constructed, nothing would be easier than to compel their universal imitation in all newly-built houses, gradually superseding the wretched dwellings which almost everywhere cumber the soil.

To the foregoing I shall only add that every house—certainly every house in the country—should have a garden. But, as gardens in towns are only sometimes practicable, I would surround all towns, at a convenient distance, with gardens. It would prove, I am assured, an admirable investment for speculators, were a space of ground divided into rectangular portions of a rood or more, and intersected with avenues right and left, whence the different garden-plots could be visited. Each group of gardens should be suitably enclosed, with a gate-house at the entrance, where a gardener and his assistants should reside. There, for a moderate outlay, the renter could obtain the aid he might require. In Ireland and Scotland, and even the greater part of England, there is too little of all this. Yet the practice, or a similar one, obtains to a great extent in Germany, and nearer home—about the great town of Birmingham. Even on so moderate a scale, the pot-herbs, the fruit, and the flowers which the merest stripe of a garden should furnish, would prove the greatest solace to young and old. Such an arrangement would prove a real boon—not to say resource—to the heads of families in our great cities; workers, with their wives and families, now condemned, year after year, to close abodes and working-places, without any outlet, perhaps, except the muddy or dusty thoroughfares, or any out-door weekly solace, except the drinking-shop.

CRYSTAL PALACE.

CERAMIC COURT.

THE Ceramic Court which has been for some time in course of formation, in the Crystal Palace, at Sydenham, under the care of Mr. Thomas Battam, F.S.A. has been opened. It is on the garden side of the nave, and contains magnificent specimens of Sevres, Dresden, Chelsea, Worcester, and other manufactures, from some of the most eminent collections in this country, besides many fine works by the principal English manufacturers. We shall take an early opportunity to mention it at greater length.

CHURCH OF ST. GEORGE, BASSETERRE, ST. KITTS.

THE church of St. George has been twice laid in ruins, during the present century, by the violence of earthquakes and hurricanes. It has been resolved again to erect the church, and Mr. Slater, architect, of London, has prepared a design, which is now in course of execution, the work having been commenced in May, under the superintendence of Mr. Mathew, who went from England for the purpose as clerk of works. As the principal church of the island, it was required to be of considerable size and dignity, whilst the peculiar and violent natural influences to which it will be subject forbade enriched ornament or lofty proportions. Adapting to the circumstances the style of the fourteenth century in England, the walls are made very solid, with largely-projecting buttresses, massive stone columns, and a low pitched open timber roof, so framed as to support the walls in any vibration to which they may be subject. The windows are placed low for the admission of air, and are deeply recessed from the outside, so as to place them as much as possible in shadow. They are filled with lattice or jalousies, with the addition of outside shutters, necessary for protection against hurricanes. The plan is cruciform, consisting of a nave, 24 feet wide, with aisles each 16 feet 6 inches wide, and a low tower attached outside the south aisle. The chancel is a continuation of the nave, with an apsidal termination, and with aisles, the transepts having a slight projection. The total inside length is 185 feet; the breadth across the transepts, 86 feet. Accommodation is afforded for 1,200 persons on the floor. The chancel will be fitted for choral service: these fittings, as well as a peal of bells, and stained glass for the east windows, will be manufactured in England. The cost of the works, exclusive of these supplementary items, will be about 7,000*l.* which is provided for by an Act of the Legislative Council of the island.

ST. SAVIOUR'S, SOUTH HAMPSTEAD.

THE Church of St. Saviour, South Hampstead, was consecrated by the Bishop of Oxford (acting for the Bishop of London), on Monday last. The plan is cruciform, with shallow transepts and chancel aisles, in one of which latter the organ is placed. The style adopted is Early English, and the windows have plain lancet heads. The tower and spire are to be at the west end of the south aisle, but the tower is only carried up at present to the height of the aisle roof. The walls are faced externally with Kentish rag and Bath stone. The seats, which are open and low, are of stained deal, and the reading-desk, which stands in the chancel, facing south and west, is of oak. The pulpit stands against the south pier of chancel arch, and is richly carved. It is constructed of Caen stone, and is ornamented with figures of angels bearing scrolls, and with columns of red marble. The font is also of Caen stone, with Minton's encaustic tiles let into the sides. The reredos under the east window is elaborately carved: the centre is of Caen stone, divided into three deeply carved and recessed panels, containing respectively a cross and the letters alpha and omega on either side, on a background of fruit and foliage, carved from nature. On each side of the centre composition, the wall is lined with a bold diaper of terra cotta, by Blanchard, of Blackfriars-road. The east window is a triplet, and is filled with stained glass, by Lavers, of Southampton-street, Strand. The centre light contains the figure of Our Lord, with the inscription, "I am the resurrection and the life;" and in the two side lights are figures of Saint Peter and Saint Paul. The floor of the chancel is paved with Minton's encaustic tiles, and the altar, which is raised several steps, stands on a footpace. The chancel arch and chancel roof are embellished with colour, and round most of the arches texts are painted, some upon gold grounds. The architect is Mr. Edward M. Barry, and Messrs. Lucas (Brothers) were the contractors. The amount of their contract was 4,000*l.* exclusive of foundations, pulpit, font, reredos, and decoration. The pulpit and reredos were carved by Earp, of Westminster-road, and the font and tile work were executed by Field, of Parliament-street. The church will accommodate 730 persons.

INFORMATION UNDER THE METROPOLITAN LOCAL MANAGEMENT ACT.

MR. LE NEAL, a licensed victualler, landlord of the Earl Grey, on the south side of the Mile-end-road, appeared before Mr. Yardley, at the Thames Police Court, on the 8th, to a summons, in which he was charged with having erected a building, booth, or shed, projection, or obstruction, in front of his house, which was an annoyance and nuisance to the neighbourhood, and rendered the passage or thoroughfare along the road less commodious; and whereas, notwithstanding a notice was given to him to remove or alter the same within fourteen days, the same continued a nuisance and an annoyance to the neighbourhood.

Mr. Huddleston stated, on the part of the vestry of Mile-end Old Town, that the summons was issued in conformity with the 119th section of the Metropolitan Local Management Act, and that the complaint against the defendant arose in consequence of a booth, or covered shed, being erected in front of the house, the effect of which was to cause the thoroughfare, as implied by the Act, to be less commodious, while, in consequence of the number of persons assembling in it, a considerable annoyance was caused to the neighbourhood, and the inhabitants made complaints of the nuisance. The defendant had received due notice from the vestry to remove the shed within 14 days, and not having done so, he was liable to a penalty of 5*l.*

Mr. Yardley.—Is it a question that the booth as an obstruction is on a part of the highway?

Mr. Huddleston.—I will be able to show that this is a portion of the highway.

Mr. Yardley observed, that supposing this to be a question of highway or not highway, he thought he

was not a proper tribunal to adjudicate on it, and that it ought to be taken to a superior Court.

Mr. Robinson, for defendant, said that the path on which the shed was erected belonged to the lord of the manor.

Mr. Huddleston remarked, that he would be able to show that the parish had repaired the path in question for years.

Mr. Yardley urged the learned counsel to refer a case of so much importance to another Court, and said that in order to give time for considering whether they would adopt that course, he would adjourn the case for a month.

This was agreed to.

MIDDLESEX INDUSTRIAL SCHOOLS COMPETITION.

IT is, I believe, at last settled to which designs the premiums offered by the committee for the Middlesex Industrial Schools shall be given. I write to express a hope that, following the excellent example in the case of the late barracks' competition, the designs will be thrown open for public exhibition before they are sent back to the competing architects. If such exhibitions are of value to the public at large, and especially that portion of the public connected with institutions similar to the one about to be erected, much more are they advantageous to architects and the students of architecture; and it is on this ground that it is hoped, by other architects who competed as well as by myself, that you will use the influence of your journal to procure us this public benefit. FABER.

Miscellanea.

GAS-FITTERS' ASSOCIATION.—On Monday the annual dinner of the Gas Fitters' Mutual Association was held at the Plough, Blackwall. The President, Dr. Bachhoffner, in proposing success to the association, regretted that it had not met with that support the object merited, both for themselves as craftsmen, and for the public at large. He supposed he was expecting too much for a society yet in its juvenescence: he would, nevertheless, urge on them the need for their increasing their exertions, more especially with reference to supplying the want there was for a *locale*,—museum he would scarcely designate it,—where should be gathered models or specimens of such matters as are in present use, and of those each day added as science advanced. Many promises of assistance had been made extraneously, and it only remained with the association to make these promises fulfilments. Mention was also made of various lectures delivered during the last session, those by Mr. Lewis Thompson, Mr. Burnell, and Mr. Wright being more particularly alluded to. The value of a museum as proposed by the learned Doctor cannot be too strongly pressed; but it must be extended to something beyond simply the practical. Art must not be overlooked, there being, indeed, a very wide field open for improvement, if we bear in mind the tasteless fittings we see daily perpetrated.

THE FALL IN BIRKENHEAD.—We last week noticed the fall of a large hotel in Conway-street, and said it was from the foundation being bad, but we have since been informed that it was from the centres of the arches which were turned over the cellars being struck too soon, causing them to fall in, thereby bringing down that portion of the hotel over the large windows, as there were but brick piers at intervals, and the sudden fall of the cellar arch knocked them from their perpendicular: the remainder of the hotel where the outer walls were solid, was not at all shaken. The damage has since been repaired, but the arches have been dispensed with, and joists put in their stead. Mr. George Lacey is the builder and owner.

COST OF "REPAIRS" AT MELBOURNE.—The Melbourne people have been a good deal scandalized by the discovery that 29,183*l.* have been spent in "altering and repairing" the governor's residence at Toorak—a country mansion held on a five-years' lease! Some of the items seem monstrous, even for a gold country; 450*l.* for poultry-houses, and 181*l.* for repairing pigsties.

HOLBORN-HILL.—Your correspondent, "A Time-saver," has only suggested the project which I originated nearly twenty-eight years ago, as you will see by the accompanying lithograph. It was the last of three different designs, on which, above 8 feet long, and the detailed estimates, I expended much time and money, without any remuneration. An objection was at that time made to the authorizing of a company to take toll in the City, or I was prepared with a party who would have carried it into effect. As the houses proposed to be removed have been, I believe, since taken down, the estimated cost would be reduced, which might obtain for it more favourable reception.—T. F. TAYLOR.

THE GREAT PUBLIC WORKS IN THE BAY OF BENGAL.—The immense works begun in 1848 have been pushed forward with great vigour. An enormous dam has been carried across the Delta; seven navigable channels connect the weir with the coast; immense drains diminish the risk of inundation; eighty miles of embankments restrain the river in its proper bed; a safe harbour is being constructed; and several thousand men are now employed in improving the navigation of the Upper Godavery, and in opening a communication with the sea for 10,000,000 of people. These great results have been obtained at a comparatively small cost. The actual expenditure up to 1853 was only 180,000*l.* producing an increased revenue of 60,000*l.* or an annual profit of 33 per cent. Before the improvements of the Delta are completed, double that sum will no doubt be expended, and the investment will prove still more lucrative. It is to the Madras government the Indian public are indebted for these vast improvements. Colonel Arthur Cotton, late chief engineer of the Madras presidency, planned the works, which are certainly not very consistent with the stereotyped charge of neglect and do-nothing policy so frequently made as to our Indian affairs.

NEW DESCRIPTION OF KILN. — A new kind of kiln for drying grain, in which propulsion by machinery is a main feature, is said to have been invented by a Mr. Macdonald, of Portsoy. The *Banffshire Journal*, in describing a working model of the machine, says "it consists of a series of cylinders placed horizontally in a square funnel or shaft, heated by means of flues. . . . The grain is fed from a hopper through a feed-pipe into the end of the uppermost cylinder. The first screw, having a rotatory motion, takes the grain from the feed-pipe, and forces it along to the opposite end, where it falls through the connecting pipe, and enters the second cylinder, the spiral of which, revolving the contrary way, takes it back to the opposite end, or perpendicular to where it first entered, and so on through all the series, each successive spiral revolving the contrary way until the grain is delivered from the last through a spout into a hopper or couch prepared for its reception." The improvements achieved by this machine are said to consist of the exclusion of all smoke from the grain, a reduction in manual labour, a saving of fuel, and an increased power of drying.

THE FILTHIEST CITY ON THE FACE OF THE EARTH.—At a meeting of the Police Committee of Glasgow, on Monday, says last week's *Scotsman*, Councillor Moir read a letter from one of the members of the British Association in regard to the sanitary condition of Glasgow. The learned gentleman, who had been in Glasgow during the recent meeting of the association, stated that he was a foreigner and a traveller, and that he had been in almost every city in the habitable globe, but had seen none that could equal the metropolis of the west in filthiness.

STATISTICS OF COPPER, ZINC, AND LEAD. — A return, just obtained by order of Parliament, states that the copper ore imported last year amounted to 58,089 tons, and the regulus to 8,510 tons; while of unwrought copper in bricks, pigs, &c. there were imported 3,624 tons; of old copper fit for remanufacture, 1,168 tons; partly wrought, in bars, rods, &c. 4,419 tons; plates and coins, 269 tons; and copper manufactures and copper plates engraved, 513 tons. Of those countries which exported copper ore, the largest quantity, 22,425 tons, came from Cuba; from Chili, 11,845 tons; the United States, 5,139 tons; Spain, 3,773 tons; South Australia, 2,966 tons; Bolivia, 2,280 tons; British possessions (South Africa), 1,543 tons; Algeria, 1,207 tons; British North America, 1,078 tons; British West Indies and Guinea, 1,009 tons; Peru, 1,117 tons; France, 838 tons; Italy, 755 tons. The largest importation of regulus was from Chili—viz. 7,039 tons; from France, 673 tons; Norway, 367 tons; Holland, 271 tons. The exports of copper from the United Kingdom during the year 1855, was as follows:—Copper, 27 tons 10 cwt.; unwrought, 5,119 tons; coin, 6 tons 7 cwt.; sheets, nails, &c. 10,432 tons; wire, 16 tons 4 cwt.; other wrought copper, 1,084 tons. The foreign copper exported from the United Kingdom consisted, of unwrought 671 tons; part wrought, 278 tons; plates and coin, 93 tons. The imports of zinc amounted to 17,852 tons, and the exports to 2,516 tons of British and 2,636 tons of foreign. The lead (pig and sheet) imported in 1855, amounted to 7,246 tons, and the lead ore, 742 tons. The principal quantity of the lead imported (pig and sheet), came from Spain, amounting to 6,996 tons; and 371 tons of lead ore were imported from France. The British lead ore exported during the year 1855, consisted of 564 tons; pig and rolled lead, 20,466 tons; shot, 1,681 tons. Of the British lead ore exported, France took 463 tons; of pig and rolled lead there were sent to the United States, 9,264 tons; France, 4,359 tons; China, 1,993 tons; and Australia, 1,078 tons.

THE SHIPWRIGHTS' STRIKE AT MESSRS. YOUNG AND MAGNAY'S.—The workmen employed by Messrs. Young, Son, and Magnay, instead of those connected with the Shipwrights' Union, who struck work on the lunch question, are shamefully tampered with, harassed, and intimidated by those connected with the union, who seem to constitute a conspiracy to prevent fellow-workmen from earning a livelihood, much rather than a union for behoof of workmen. The employers have been compelled to take out warrants against workmen who have contracted with them but have fled from their work under the malign influence of these conspirators; and although pardoned after being sentenced to three months' imprisonment, with hard labour, not a few of them, after promising to return to their work, have still failed to do so, and now it comes to be a question whether the law or the union is the strongest. "Our yard," says Mr. Magnay, "is like a beleagured fortress. Men are constantly watching from a publichouse window all that is going on within: there are spies and scouts at the corner of every street near the yard: the men we engage in the country are intercepted at the railway stations; and we believe intimidation has been practised. There are plenty of men anxious to work for us, but they are prevented doing so by a tyrannical and inquisitorial tribunal which interferes with the freedom of labour, and has agents all over the kingdom."

CHURCHES STRUCK BY LIGHTNING. — Clapton Chapel was struck by lightning on Friday in week before last. One of the pinnacles of the building was broken, and large stones were dislodged, some falling on the roof, others upon the ground. The damage done is considerable. The chapel and the adjoining school-rooms were erected within the last four years at a cost of nearly 10,000*l.*——During the same thunder storm the parish church of Addlethorpe (Alford) was struck by lightning. A fire-ball appeared, says the *Lincolnshire Chronicle*, to come through the roof, and it exploded with a terrific report a few feet above the floor, about half-way between the reading-desk (where the Rev. E. H. Edman was at the time) and the west end of the church, leaving a strong sulphurous smell after it. Almost immediately after, the part of the roof on the north side of the nave, adjoining the tower, fell in with a tremendous crash, breaking through the seats below amid a cloud of dust. When thinking it safe to move, Mr. Edman went out, and, on reaching the porch door, he found a lamb lying dead against it, and a sheep also close by. The north-east pinnacle of the church had been struck by the lightning, the fall of which, together with the stonework at that corner as far as the moulding, had brought down that portion of the roof into the church. The porch door was splintered in several parts, and several other parts of the church were injured.

MONUMENTS.—A great open-air meeting has been held in the King's-park, Stirling, for the purpose of taking measures to raise a national monument to the memory of Sir William Wallace, to be erected on the summit of the Abbey Craig, near that city. Business was entirely suspended in Stirling on the occasion, and at least 10,000 persons were present in the park. The Earl of Elgin went down from London by express for the purpose of presiding at the meeting. The resolution proposed was unanimously carried. The design for the monument is to be submitted to public competition among native artists.——It is proposed to erect a monument to the late Sir Henry Bishop, over his grave, in the Finchley cemetery. A meeting was held, at the rooms of the Harmonic Society, Exeter Hall, last week, and was very numerously attended. Resolutions in favour of the object of the meeting were passed *nem. con.* and a subscription list opened. ——The proposal to erect a monument to Franklin at Lincoln, as a suitable site, has called forth a reply from Spilsby, in which it is stated that Spilsby, being the place of his birth, has prior claims to be the site of the proposed monument.

WILTS ARCHÆOLOGICAL SOCIETY.—It is intended to hold the next annual meeting of this society at Warminster, on Tuesday and Wednesday, the 5th and 6th August next. The Marquis of Bath has accepted the presidency of the meeting, and will throw open Longleat House and grounds to members of the society.

BATHS IN LONDON.—I cannot say much for the pluck of the Londoners in allowing such large places as the City, Islington, and Clerkenwell to be without public baths and libraries, when comparatively small country towns have adopted them long since. Men connected with the City leave tens and hundreds of thousands: how small a portion of their hoards would give an impetus to raise the necessary means to make thousands more cleanly and enlightened. 10,000*l.* as the corner-stone of a subscription for baths and libraries, with the addition of other benefactions and a small rate, would effect the object without impoverishing the next heirs.—G. H.

THE PROJECTED SUEZ SHIP CANAL.—The European Commission of Engineers assembled the week before last in Paris, to discuss the details of the plan for cutting a canal across the Isthmus of Suez, and have brought their labours to a close. The following is a summary of the resolutions agreed upon at the various sittings:—The commission have adopted the principle of a direct cutting from Suez to the Mediterranean. They have rejected the system of supplying the maritime canal from the fresh water of the Nile, and have adopted that which supplies it with sea water. At the close of their discussion, it was decided that the canal should not be embanked in its passage across the bitter lakes. As regards the port of Suez, on the Red Sea, the commission adopt the situation and direction given to the channel. A port for taking in stores, refitting, and repairing, will be created in Lake Meuzaleh.

THE STRIKE AT PEMBROKE DOCKYARD.—The strike of the masons employed by the contractors on the extensive works in progress at the royal dockyard at Pembroke has, to a certain extent, been broken up. The contractors, Messrs. Smith and Tregenna, have brought round from Dublin a body of 200 men, in order to supplant those who held out; and of this body a large number went to work. Some of the older hands also joined, so that the works have been fully resumed.

THE HEREFORD WATERWORKS.—The waterworks at Broomy-hill, under Mr. Moxon, the contractor, are very nearly completed. The engine-house, with its necessary appurtenances, is situated at the foot of the hill, and distant about 100 yards from the river. The engine is from the manufactory of Messrs. Simpson and Co. of London. It is on the beam principle, condensing, and working the steam expansively. It is capable of pumping 40,000 gallons of water per hour, raising it 103 feet high, through a 10-inch rising main, 500 feet long. The outlet of the rising main is brought up to the centre of the reservoir, 2 feet 6 inches above the top-water level. On the lower side of the reservoir—the capacity of which is 4,126,000 gallons—are the two filtering beds, situate 18 feet below its level. In the centre of each filter-bed is a square pedestal, surmounted by a vase, 4 feet high, through which an ornamental jet will play. The sewerage drains will be flushed with water from the reservoir, and the filtered water be preserved entirely for domestic purposes.

IMPROVEMENT IN IRON HOUSES.—Mr. W. Clarke, of Kingsland, has recently patented an improvement in the construction of iron houses, consisting of a malleable iron joint. Its principal value is held to consist in the facility for removing iron houses, as it can be adopted by persons unskilled in mechanical craft.

STREET WATERING AND FIRES.—A recent article in your valuable paper on "Street Watering," &c. recommending the use of "hydrants" in lieu of pumps, recalls to my memory an old idea of mine, conceived in 1847, on the occasion of seeing a turncock's arm broken at the corner of Cheapside, while turning on the main, which happens to be fixed in the centre of the road, opposite Allan, Badger, and Co.'s warehouse, near the General Post Office. I propose a hydrant, consisting of a lamp-post (with lamp fitted with coloured star in each side, so as to show by night); the base to contain a pipe, with nozzle from main; on the top of which, in a flat cast-iron tube, similar to that used for electric telegraph street wires, I run an endless chain, going round a wheel or pully on main, to turn on and off supply, either by butterfly or sliding valve, similar to a dock-gate valve: the chain goes up base of post, and round a smaller pulley, which would be fixed about the height of a yard from surface of pavement, so that the turncock would only have to insert a handle, a few turns of which open or close the mains. The hydrant would have a different shaped plug or tap, so that there need be no mistake. I think my plan offers the following among other advantages, viz. there is no iron plug-hole in the roadway, making uneven wear of paving, no unsightly "F. P. 14 ft." on Brown, Jones, or Robinson's house; no danger to turncock; no delay in cleaning out plug-holes, or in finding them at night when wanted, as the coloured lamp would indicate their situation. I have tried the experiment of what power it would require to work a valve on my plan, and find that with a pulley (working screw to raise valve in main), of 2 feet diameter, geared by chain, with one about 3 or 4 inches in post, a leverage of 2 feet would be amply sufficient. One experiment was tried with valve, at 70 feet distance, much farther than would usually be found, and with more turns and bends than could possibly accrue. There would be a considerable saving of weight for the turncock to carry, as he would only require one instrument (which need not weigh so much as the key), instead of the three he is now burdened with.—G. H. S.

COMPETITION.—With a view to the improvement of the Royal Hotel, Mall, Clifton, Bristol, various architects having been invited to compete anonymously for the commission, six plans were sent in,—to three of which premiums of twenty, fifteen, and ten guineas were awarded. The successful candidates were Mr. J. H. Hirst, Mr. S. B. Gabriel, and Messrs. Pope, Bindon, and Clark. After some consideration, the committee, on the recommendation of Mr. Medland, architect, of Gloucester, who was called in professionally to advise on the decision, determined upon the adoption of Mr. Hirst's design, as more in accordance with the conditions of the scheme they had submitted to the different architects.

THE CAVALIERE CANINA, the celebrated antiquary and architect, of Rome, has just arrived in London. He is on his way to Alnwick Castle, to direct, with Mr. Salvin, some of the decorations of the ceilings and other parts, which the Duke of Northumberland desires to be executed in the grand style of the Roman palaces. The Cavaliere is an honorary and corresponding member of the Royal Institute of British Architects.

REPORT ON NEWPORT DRAINAGE.—A report on the general drainage of Newport, Monmouthshire, has been prepared by Mr. Alfred Williams, C.E. in a printed form. The reporter states that the sewage of two-thirds of the borough may, by the proposed works, be brought to the Pillgwenlly outlet, and nearly all the remainder to same outlet by a further expenditure. No flushing will be required. The scheme contemplates about seven miles of new brick sewers, &c. the sewers varying in height from 14 inches to 4 feet 6 inches; all above 14 inches being egg-shaped, and the materials of the whole, radiating bricks, laid in mortar, with some in cement. The cost of new sewers, &c. and repairing old, is estimated at 13,000*l*. The number of houses in the borough is about 3,400, so that the average cost of the works would be about 3*l*. 16s. per house. The cost of sewers proposed to be made on lands not yet built on is estimated at 3,000*l*.

ROMAN CATHOLIC CATHEDRAL IN SOUTH AUSTRALIA.—The foundation-stone of the intended new Catholic Church of St. Francis Xavier, in Victoria-square, Adelaide, was laid on Monday, March 17. The day being the anniversary of Ireland's patron saint (St. Patrick), there was a large attendance to witness the ceremony.—*Australian and New Zealand Gazette.*

ANCIENT WELL DISCOVERED AT UTTOXETER.—As a party of workmen were engaged a few days since in digging the foundation for a new house in connection with a shop, in the Market-place, they discovered, underground, a curious old stone well, arched over, and about ten yards deep. The stones, of which it is built throughout, are worn away by the trickling of the water, and it is of very ancient, if not, as supposed, of Roman origin; but the Goths and Vandals of the place have filled it up with soil.

TENDERS

Delivered to the Guardians, Mint-street, Southwark, for industrial schools for the parish of St. George the Martyr, to be built at Mitcham:—

——	Main Building.	Infirmary.	Porter's Lodge, &c.	Total.
	£.	£.	£.	£.
Humphreys	10,162	1,950	867	12,979
Taylor and Buckley	9,900	1,672	741	12,313
Pollock and Co.	9,723	1,639	617	11,979
Day and Co.	9,640	1,822	790	12,252
Tarrant	9,393	1,660	736	11,789
Myers	9,360	1,735	752	11,847
Hack and Son	9,237	1,697	737	11,671
Mosland	9,200	1,700	760	11,660
Rudkin	9,190	1,750	700	11,465
Little and Sons	9,188	1,670	726	11,584
Patrick	9,015	1,750	700	11,465
Harmer	8,996	1,671	727	11,394
W. Higgs	8,965	1,700	700	11,365
S. S. Wilson	8,865	1,729	744	11,338
Thompson	8,660	1,600	690	10,950
Adamson and Sons	8,598	1,713	721	11,032
J. Wilson	8,331	1,528	680	10,539

For erecting five houses, Oxford-place, Hackney-road, for Mr. James. Mr. H. J. Hammon, architect:—

Brown	£2,737	0	0
Munday	2,610	0	0
Vialow	2,599	0	0
Hopkins and Roberts	2,454	0	0
Dove, Brothers	2,446	0	0
Axford and Hall	2,322	0	0
Carter	2,174	0	0
Hocken	2,150	0	0
Nagol	2,150	0	0
Tarrant	2,136	0	0
Johnstone	2,019	0	0
Mears	1,973	0	0

For church in the Westminster-road. Mr. W. Rogers, architect. Quantities supplied by Mr. Jarvis:—

Taylor and Buckley	£8,990	0	0
Gammon	8,750	0	0
W. Higgs	8,620	0	0
Lucas	8,322	0	0
Cubitt and Co.	8,290	0	0
Macey	8,140	0	0
Patrick and Son	7,944	0	0
Myers	7,683	0	0

For a new house in Cornhill, for the English, Scottish, and Australian Chartered Bank. Portland stone and part polished granite front. Mr. Henry Baker, of Upper Gower-street, architect:—

Ashby and Sons	£5,359	0	0
Cubitt and Co.	5,349	0	0
Lawrence and Son	5,299	0	0
Young	5,197	0	0
Batterbury	5,180	0	0
Mansfield and Son	4,950	0	0
Piper and Son	4,666	0	0

For eight houses, Islington. Mr. W. Rogers, architect:—

Hill	£2,835	0	0
Taylor	2,649	0	0
Gammon	2,561	0	0

For rebuilding two houses at Rufford's-buildings, Islington. Mr. Leicester, architect. Quantities supplied:—

Mansfield and Son	£1,375	0	0
Hill	1,297	0	0
East	1,297	0	0
Willson	1,237	0	0
Coleman	1,192	0	0
Fowler (accepted)	1,113	0	0

For erecting part of the carcase of a mansion at St. John's-wood. Mr. Joseph Springbett, architect:—

Unwin	£2,613	0	0
Holland and Co.	2,565	0	0
Hebb	2,475	0	0
Higgs	2,230	0	0
Clemence	2,204	0	0
Browne and Co.	2,112	0	0

TO CORRESPONDENTS.

Churches struck by Lightning.—The *Builder* almost every summer has recorded such cases; but dates would require a special reference.

Spring and Thames Water.—Lime water is perhaps the best agent for softening spring water containing lime, which it precipitates by depriving it of carbonic acid. Thames water would require filtration through charcoal or other cleansing process, to render it fit to drink. The *Builder* has often treated of modes of softening and cleansing water, and to it we must make general reference.

"T. McA."—"W. L. R."—"Sir J. S. L."—"C. C. N."—"S. H."—"C. L. N."—"N. W. L."—"W. F. H." (we shall be glad to see it).—"G. R. C." (thanks).—"J. L."—"J. P."—"T. H. B."—"Morvah" (set forth your claim to the head of your department.)—"C. R. S." "T. R. S."

"*Books and Addresses.*"—We are forced to decline pointing out books or finding addresses.

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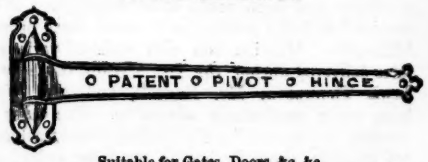

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COLLINGE'S PATENT HINGES.—Manufacturers, CHARLES COLLINGE and CO. 64 and 65, Bridge-road, Lambeth, where a great variety are always on view for church, park, railroad, coachhouse, and other gates and doors of large and small dimensions, a ton weight moving with these hinges as easily as a wicket. Ornamental hinges, adapted for drawing-rooms, &c.; doors fitted with them may be removed and replaced in an instant. Rising and double-acting spring hinges, and superior gate fastenings, at moderate prices. None genuine unless marked "Charles Collinge, Patent, Lambeth." Plain and ornamental cast and wrought iron-work, for building and other purposes. Engines, machinery, patent axle-trees, sugar-mills, &c.

TO ARCHITECTS, &c.—The IMPROVED SELF-ACTING WATER-BAR for FRENCH CASEMENTS, the best and most effectual yet invented, is made by T. SMITH, of 14, Queen-street, Oxford-street, near Argyll-street, where a working model can be seen or will be sent for inspection on the shortest notice.
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TELL-TALE TABLE.—WANTED to purchase a Tell-tale Table for a Garden-gate.—Apply to Messrs. ROGERS and AYLING, Tivoli Gardens, Preston, near Brighton.